

CLARK

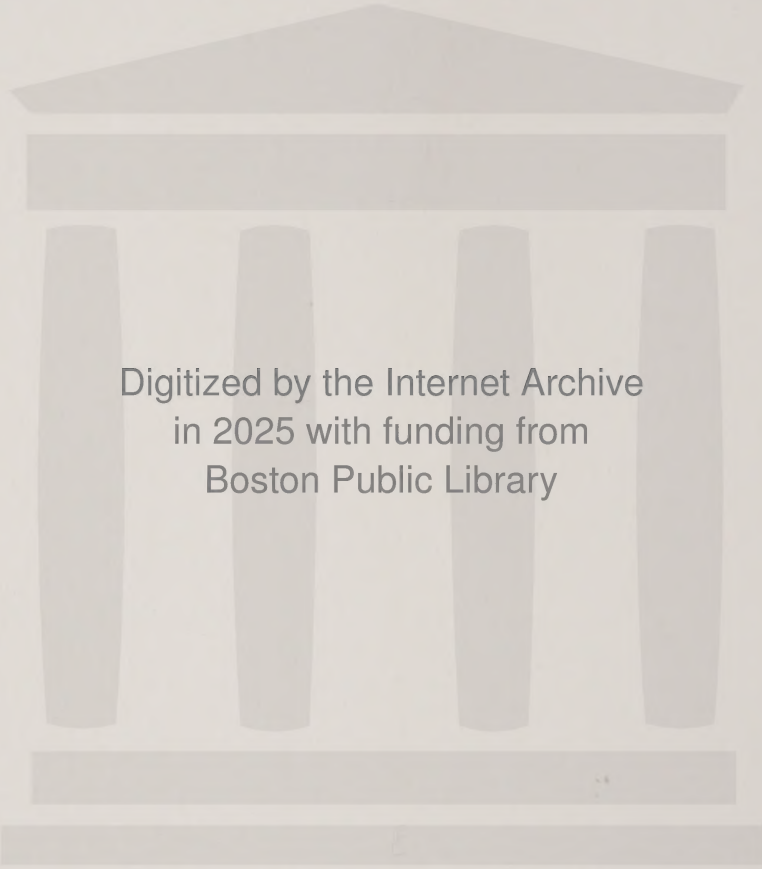


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CLARK UNIVERSITY

2003-2004 ACADEMIC CATALOG



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Academic Catalog 2003–2004

TABLE OF CONTENTS

Introduction	1
The Academic Program	2
Two-Year Students	3
The Information of Academic Catalog	4
Part-time and Evening Study	5
Admission Requirements	6
Departments and Programs	7
College and University	8
The Graduate Program	9
Research and Service	10
Student and Faculty	11
Financial Information	12
Academic Calendar and Academic Year	13
College	14
University	15
Graduate	16
Continuing Education	17
Continuing Education	18
Continuing Education	19
Continuing Education	20
Continuing Education	21
Continuing Education	22
Continuing Education	23
Continuing Education	24
Continuing Education	25
Continuing Education	26
Continuing Education	27
Continuing Education	28
Continuing Education	29
Continuing Education	30
Continuing Education	31
Continuing Education	32
Continuing Education	33
Continuing Education	34
Continuing Education	35
Continuing Education	36
Continuing Education	37
Continuing Education	38
Continuing Education	39
Continuing Education	40
Continuing Education	41
Continuing Education	42
Continuing Education	43
Continuing Education	44
Continuing Education	45
Continuing Education	46
Continuing Education	47
Continuing Education	48
Continuing Education	49
Continuing Education	50
Continuing Education	51
Continuing Education	52
Continuing Education	53
Continuing Education	54
Continuing Education	55
Continuing Education	56
Continuing Education	57
Continuing Education	58
Continuing Education	59
Continuing Education	60
Continuing Education	61
Continuing Education	62
Continuing Education	63
Continuing Education	64
Continuing Education	65
Continuing Education	66
Continuing Education	67
Continuing Education	68
Continuing Education	69
Continuing Education	70
Continuing Education	71
Continuing Education	72
Continuing Education	73
Continuing Education	74
Continuing Education	75
Continuing Education	76
Continuing Education	77
Continuing Education	78
Continuing Education	79
Continuing Education	80
Continuing Education	81
Continuing Education	82
Continuing Education	83
Continuing Education	84
Continuing Education	85
Continuing Education	86
Continuing Education	87
Continuing Education	88
Continuing Education	89
Continuing Education	90
Continuing Education	91
Continuing Education	92
Continuing Education	93
Continuing Education	94
Continuing Education	95
Continuing Education	96
Continuing Education	97
Continuing Education	98
Continuing Education	99
Continuing Education	100

Academic Catalog 2003–2004





Academic Catalog 2003–2004


TABLE OF CONTENTS

Introduction	3	Management	239
The Academic Program	6	Master of Business Administration	246
First-Year Seminars	12	Master of Science in Finance	249
The International Studies Stream	19	Mathematics	265
Tuition and Financial Aid	27	Philosophy	271
Admission Requirements	34	Physics	280
Requirements for a Bachelor's Degree	37	Psychology	288
Facilities and Student Resources	43	Sociology	312
The Graduate Program and		Visual and Performing Arts	318
Research Institutes	48	Art History and Criticism	319
Majors and Minors	57	Studio Art	326
Ancient Civilization	57	Music	331
Biochemistry and Molecular Biology	60	Screen Studies	338
Biology	63	Theater Arts	343
Chemistry	72	Concentrations	348
Communication and Culture	78	Asian Studies	348
Comparative Literature	83	Computational Science	350
Computer Science	87	Ethics and Public Policy	351
Economics	92	Holocaust and Genocide Studies	353
Education	103	Jewish Studies	355
Engineering	114	Law and Society	358
English	116	Peace Studies	359
Environmental Science and Policy	131	Race and Ethnic Relations	361
Foreign Languages and Literatures	140	Urban Development and	
Geography	154	Social Change	364
Government and International		Women's Studies	367
Relations	176	Ph.D. Program	369
History	190	Faculty	378
International Development		Administration	387
and Social Change	208	The Corporation	388
International Development,		Academic Calendar	389
Community, and Environment	219	Index	390

Academic Catalog 2003-2004

TABLE OF CONTENTS

Introduction	1
The Academic Program	2
First-Year Seminars	12
The International Studies Program	19
Tuition and Financial Aid	23
Admission Requirements	34
Requirements for a Bachelor's Degree	37
Education and Graduate Research	46
The Graduate Program and Research Institute	48
Major and Minor	71
Academic Guidelines	72
Biochemistry and Molecular Biology	76
Biology	83
Chemistry	82
Communications and Creative Writing	78
Comparative Literature	88
Computer Science	87
Earth Science	93
Education	103
Electronics	114
English	110
Environmental Science and Policy	121
Foreign Languages and Literature	140
Geography	154
Government and International Relations	170
History	190
International Development and Social Change	208
International Development	210
Community and Environment	210
Mathematics	219
Minor in Business Administration	260
Minor in Science in Physics	260
Minimizations	262
Philosophy	271
Physics	280
Psychology	288
Secondary Education	311
Science and Technology Areas	318
Art History and Cinema	319
Studio Art	320
Latin	331
Spanish Studies	338
Studio Art	341
Government	349
Asian Studies	349
Comparational Science	350
English and Public Policy	351
History and Geographic Studies	352
Latin Studies	353
Law and Society	354
French Studies	359
Race and Ethnic Relations	361
Urban Development and Social Change	364
Women's Studies	367
World Religion	369
Faculty	378
Administration	383
The Corporation	388
Academic Calendar	390
Index	390



The Clark Experience



At Clark University, you are respected for challenging convention and trying out new ideas. You learn how social change is made, and you get to be an agent of that change. Individual development is nurtured by a dedicated faculty who encourage hands-on learning.

Clark is an incubator for original ideas. You can find it in our history and on our campus now—innovators who aren't restricted by conventional wisdom, who are supported in their search for new ways of thinking.

We have many pioneers in our history: Robert Goddard, Clark graduate and physics professor, the father of modern rocketry; psychologist G. Stanley Hall, who established the field of scientific psychology; history professor George Hubbard Blakeslee, one of the founders of international relations.

We have pioneers on campus now: foreign languages professor Everett Fox painstakingly translated the first five books of the Old Testament from the original Hebrew, creating a more poetic version of the classic of all classics. Professor Ron Eastman, with his software IDRISI, simplified computer mapping and analysis for use on a personal computer. Debórah Dwork established Clark's leadership in the study of Holocaust history as the first director of Clark's Strassler Family Center for Holocaust and Genocide Studies.

These and many other creative faculty researchers stimulate the curiosity of students. And they respond.

At Clark, we take our role in the world seriously. Our faculty members focus on universal issues in their research. Some of our finest programs—environmental science and policy, geography, government, international development and social change, and psychology—contemplate issues affecting the world. Our management program emphasizes succeeding in

a global marketplace, and you can be part of the International Studies Program no matter what your major.

Clark students are motivated to change their world. You will be surprised at the number of student service organizations on our campus, whose members truly care about making a difference. To recognize our commitment to social change in the world, you need look no further than right outside Clark's door. It is evident in the University Park Partnership, an urban revitalization initiative spearheaded by Clark, which is improving the lives of the residents of Clark's Main South neighborhood while providing Clark students a laboratory for learning.

Clark University's mission

Clark University's mission is to educate undergraduate and graduate students to be imaginative, contributing citizens of the world, and to advance the frontiers of knowledge and understanding through rigorous scholarship and creative effort.

The University seeks to prepare students to meet the challenges of a complex and rapidly changing society. In students, as well as faculty, Clark fosters a commitment to excellence in studying traditional academic disciplines, as well as innovation in exploring questions that cross disciplinary boundaries. The free pursuit of inquiry and exchange of ideas are central to that commitment.

The foundation of Clark's academic program is grounded in the liberal arts and enriched by interactions among undergraduate students, graduate students and faculty. The intellectual and personal growth of students is enhanced by a wide variety of educational programs and extracurricular activities. Clark believes that intellectual growth must be accompanied by the development of values, the cultivation of responsible independence, and the appreciation of a range of perspectives.

Clark's academic community has long been distinguished by the pursuit of scientific inquiry and humanistic studies, enlivened by a concern for significant social issues. Among many other scholarly endeavors, Clark contributes to understanding human development, assessing relationships between people and the environment, and managing risk in a technological society.

Clark is dedicated to being a dynamic community of learners able to thrive in today's increasingly interrelated societies. The University maintains a national and international character, attracting high-caliber students and faculty from all quarters of the globe. As a university residing in an urban neighborhood, Clark also strives to address the needs and opportunities of contemporary urban life.

History

Clark University is a teaching and research institution founded in 1887 as the first independent, all-graduate university in the United States.

Clark's first president was G. Stanley Hall, founder of the American Psychological Association, who at Harvard earned the first Ph.D. in psychology in this country. Clark has played a prominent role in the development of psychology as a distinguished discipline in the United States. In 1909, Clark was the location for Sigmund Freud's famous "Clark Lectures," which introduced psychoanalysis to this country.

Clark also has played an important role in the development of geography as a discipline. Clark has granted more Ph.D.s in this environmentally related area than any other school in the nation. The George Perkins Marsh Institute was the first research center created to study the human dimensions of global environmental change.

Researchers who have held Clark appointments include A.A. Michelson, the first U.S. Nobel Prize winner in the sciences and Robert Goddard, the father of the space age and the inventor of rocket technology. Other researchers at Clark measured the windchill factor, defined chemical double bonding, developed research leading to the birth-control pill, and made the first breakthrough in understanding how brain tissue regenerates itself.

Accreditation

Clark University is accredited by the New England Association of Schools and Colleges, Inc. through its Commission on Institutions of Higher Education.

Accreditation of an institution by the New England Association indicates that it meets or exceeds criteria for the assessment of institutional quality periodically applied through a peer-review process. An accredited college or university is one, which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Inquiries regarding the accreditation status by the New England Association should be directed to the administrative staff of the institution. Individuals may also contact:
Commission on Institutions of

Higher Education
New England Association of Schools
and Colleges
209 Burlington Road
Bedford, MA 01730-1433
(617) 271-0022
E-mail: cihe@neasc.org



The Academic Program



Clark's strength is its ability to combine high-quality liberal-arts education with personal attention and advanced study opportunities. Clark has developed a unique program of liberal studies that provides a solid foundation for advanced study. Within the program, students choose from a range of courses designed to foster their critical thinking skills and broaden their perspectives. Because they can choose among many different courses, students can take classes that interest them and, at the same time, satisfy their broad liberal-arts requirements.

By the spring of sophomore year, students declare a major, in which they develop depth and expertise. The University offers 27 majors, 23 minors and 10 interdisciplinary concentrations, which can be combined to match individual interests and academic goals. These are at the heart of the advanced studies that distinguish Clark. Once students choose a major, their academic department becomes their intellectual "home," where they are able to work closely with faculty on research and other creative projects. As students acquire increasing depth and sophistication in a field of their choosing, they are able to take advantage of Clark's wide array of courses to construct a program of study uniquely suited to their interests and career goals. In many fields, students have the opportunity to enter an honors program or accelerate to an advanced degree.

Program of Liberal Studies

The foundation of a Clark undergraduate education is the program of liberal studies. Through the program, students acquire the intellectual habits, skills, and perspectives that are essential for self-directed learning. They are given a framework within which they can select a program of study and receive a broad introduction to liberal and lifelong learning.

Students have the option of fulfilling the requirements of the program of liberal studies, through the “International Studies Stream,” which consists of courses that prepare them to better understand global political, cultural, and economic issues (see page 21).

The program of liberal studies has two components:

1. Critical thinking courses: While every course in the University involves work in critical thinking, two types of courses place special emphasis on the cultivation of these skills.

Students take courses in each of these areas:

A. Verbal expression: Courses that place special emphasis on the relationship between writing and critical thinking within a particular discipline.

B. Formal analysis: Courses that place special emphasis on logical and algebraic modes of thinking. These courses are found in several different departments.

All new students entering Clark are required to demonstrate basic competency in mathematics and quantitative thinking. Some students demonstrate this competency through achieving a satisfactory score on a standardized test or a Clark placement test. Others are required to successfully complete IDND 17 Foundations of Quantitative Thinking prior to enrolling in a formal analysis course.

2. Perspectives courses: Perspectives courses offer breadth and introduce students to the different ways in which various disciplines or fields define thinking, learning and knowing. Students must successfully complete one course in each of the following six perspectives categories, with each course taken in a different academic department:

A. Aesthetic: Aesthetic-perspective courses emphasize artistic expression and the perception, analysis, and evaluation of aesthetic form. These courses are designed to enhance students’ appreciation and understanding of the arts.

B. Comparative: Comparative-perspective courses introduce students to comparative analysis by highlighting human diversity in politics, economics, religion, culture, class, race, gender, or ethnicity. They provide students with tools for analyzing human experience by examining similarities and differences within and across societies.

C. Historical: Historical-perspective courses develop students’ capacity to understand the contemporary world in the larger framework of tradition and history. Courses focus on the problems of interpreting the past and can also deal with the relationship between past and present. All courses are broad in scope and introduce students to the ways scholars think critically about the past, present, and future.

D. Language and Culture: Language and culture perspective courses foster the study of language as an expression of culture. Students may study foreign languages, which highlight the relationship between language and culture, or English-language courses that deal with the same issue.

E. Natural Scientific: Scientific-perspective courses teach the principal methods and results of the study of the natural world. Courses focus on the knowledge and theoretical bases of science. They also include laboratories or similar components to introduce students to the observation of natural phenomena and the nature of scientific study.

F. Values: Values perspective courses seek to make sense of the moral dimension of human life, as reflected in personal behavior, social policy, and institutional structure. Courses taught from the values perspective focus on the systematic analysis of ethical issues and engage students in the formulation and reasoned evaluation of moral and ethical claims.

An Academic Challenge:

The First-Year Seminar

First-year seminars are offered by a variety of academic departments. The seminars allow students to explore in depth particular issues and subjects in their first or second semester. Seminars are limited to no more than 14 students, and the faculty member teaching the seminar serves as the adviser for the students until they declare a major. The seminars encourage first-year students to engage in the kind of intense intellectual experience that other colleges often reserve for junior and senior majors. See page 12 for descriptions of specific first-year seminars.

Departmental Majors

Sometime before the end of their sophomore year, students choose a major—the area in which they will pursue a course of study in-depth. Students may choose a traditional discipline or an interdisciplinary major, or, in some cases, may design a major tailored to their particular academic interests. While anchored in one area, the undergraduate major is structured to include courses in related disciplines. This ensures that breadth of knowledge is gained along with specialization. A major consists of 12 to 19 courses designated by a department or program. Majors must be declared prior to the beginning of the junior year.

Majors are offered in:

Ancient Civilization
Art (Art History, Studio Art)
Biochemistry and Molecular Biology
Biology
Business Management
Chemistry
Communication and Culture
Comparative Literature
Computer Science
Economics
English
Environmental Science and Policy
French

Geography

Government and International Relations

History

International Development and

Social Change

Mathematics

Music

Philosophy

Physics

Psychology

Screen Studies

Sociology

Spanish

Theater Arts

Interdisciplinary Majors

One of Clark's strengths is the eagerness of faculty and students to cross the traditional boundaries between academic fields. Interdisciplinary majors, special programs, and concentrations help students to see beyond the barriers of academic specialization.

Student-Designed Majors

While most Clark students can and do fulfill their academic goals through regularly established departments and interdisciplinary programs, the University recognizes that some students may have special interests and goals that cannot be met through normal channels. The student-designed major program is designed to provide flexibility for these students while ensuring rigorous academic standards. Students are normally expected to have a GPA of 3.0 or higher to pursue the student-designed major. Student-designed majors are coordinated by the associate dean of the college and developed with the guidance of three faculty advisers. They must be approved by the associate dean of the college by the beginning of the junior year. Guidelines for student-designed majors are available in the dean of the college office and in the academic-advising center.

Minors

Minors give students an opportunity to gain depth in an academic area in addition to their major field of study. Minors are offered in:

- Ancient Civilization
- Art History
- Biochemistry and Molecular Biology
- Biology
- Business Management
- Chemistry
- Computer Science
- Communication and Culture
- Economics
- Education
- English
- Foreign Languages (French, German, Spanish)
- Geography
- Government and International Relations
- History
- International Development and Social Change
- Mathematics
- Music
- Philosophy
- Physics
- Screen Studies
- Sociology
- Theater Arts

Concentrations

Concentrations allow students to cross traditional academic disciplines to gain broad perspectives on a subject in addition to their major. Concentrations are offered in:

- Asian Studies
- Computational Science
- Ethics and Public Policy
- Holocaust and Genocide Studies
- Jewish Studies
- Law and Society
- Peace Studies
- Race and Ethnic Relations
- Urban Development and Social Change
- Women's Studies

Accelerated Degree Programs

Clark offers several programs that allow students to complete the requirements for bachelor's and master's degrees in an accelerated, five-year period. Students may obtain a master of arts (M.A.), master of business administration (M.B.A.), master of public administration (M.P.A.), a master of science in finance (M.S.F.), or master of science in professional communication (M.S.P.C.) degree. Students are accepted into accelerated degree programs in their junior year, begin meeting requirements in their senior year, and complete those requirements in the fifth year. Bachelor's degrees are granted en route to the master's degree.

For students meeting eligibility requirements, the fifth year is tuition free. To qualify for the fifth year tuition free, a student must: be a full-time undergraduate for four years at Clark; meet bachelor's/master's course prerequisites and receive a Clark B.A. degree within four years; earn an overall 3.25 grade-point average during the second and third years and again in the fourth year.

Undergraduates who transfer to Clark are eligible for a 50 percent tuition fellowship during the fifth year of study. To qualify, a transfer student must: begin full-time study at Clark no later than the end of the sophomore year; earn at least a 3.25 grade-point average for courses taken at Clark; maintain a 3.25 grade-point average during the fourth year; and meet program course requirements.

The University has approved accelerated programs in biology; chemistry; communications; education; environmental science and policy; history; international development and social change; business management; and physics.

For further information and application procedures, contact the dean of graduate studies at (508) 793-7760.

Preprofessional Programs

Clark University recognizes that preparation for a professional career is fully compatible with a liberal-arts education. The Prelaw Program is administered through the Office of Career Services in conjunction with a faculty advisory committee. Contact Career Services for more information. Premedical or predental students are advised through a special Premedical and Predental Advisory Committee. For more information, contact Professor David Thurlow, Department of Chemistry, chair of the advisory committee.

Internships

Students are offered the opportunity to earn credit working off campus, full- or part-time, as part of their educational program. Academic credit is offered for internships that take place under the supervision of carefully selected agency sponsors in conjunction with appropriate Clark faculty. Clark participates in the Washington Semester Program with American University in Washington, D.C., and the Washington Center for Internships and Academic Seminars. Qualified students may participate in these programs and spend a semester studying and working in the nation's capital.

Office of Study Abroad Programs

Clark University is well known for its international character and is committed to encouraging a strong Clark presence abroad and an international presence on campus. The Office of Study Abroad Programs coordinates international study programs. Clark has programs in the following countries: China, the Dominican Republic, England, France, Germany, Japan, Scotland, Spain and Namibia. Clark also has affiliated programs through the School of Field Studies in Kenya, the Caribbean, Australia, Mexico, Costa Rica, and Canada.

The Leir Center in Luxembourg offers students and faculty additional opportunities for study and research abroad. A special feature of the program is the May Term, which begins right after the end of the spring semester. Clark and Holy Cross faculty take groups of students to Luxembourg on a four-week academic program especially suited for Luxembourg and its environment.

Students who study abroad on a Clark program pay the International Program Fee (approx. tuition, room, and board). Students may earn up to a full year of credit through study abroad. Students interested in study abroad should consult the Office of Study Abroad Programs at Corner House or call (508) 793-7363 for more information.

International Students and Scholars Office

The International Students and Scholars Office (ISSO) advises international students, faculty members, scholars and their dependents on matters relating to immigration (visas, passports, travel), employment and taxes, as well as academic, social, financial, and personal concerns related to daily life in the United States and at Clark University. The ISSO serves approximately 550 international students and scholars from more than 90 countries who attend Clark during the academic year and summer sessions. Through orientation and programming, the ISSO seeks to assist with the cultural and academic adjustments of international students and scholars to better meet their educational objectives. The ISSO also works to promote cross-cultural awareness among the Clark community. The ISSO is a part of the Division of Student Affairs.

Army and Air Force ROTC

Clark University students may participate in Army and Air Force Reserve Officers' Training Corps at Worcester Polytechnic Institute.

U. S. citizens, who are physically qualified, earn their degree from Clark University and satisfactorily complete the ROTC program, will be commissioned as second lieutenants in the U.S. Army or Air Force. Students may request an educational delay of active duty in order to attend graduate school. First-year and sophomore students can compete for two- and three-year scholarships, which are primarily based on academic performance and major. Students interested in Army ROTC should contact the Military Service Department at Worcester Polytechnic Institute (WPI). Students interested in Air Force ROTC should contact the Department of Aerospace Studies at WPI.

The Strassler Family Center for Holocaust and Genocide Studies

The Strassler Family Center for Holocaust and Genocide Studies provides vital national and international leadership in educating future generations of scholars. The center, in conjunction with Clark's history department, offers the nation's first Ph.D. program specifically in Holocaust history and the study of genocide. Clark also offers the richest interdisciplinary undergraduate program in Holocaust and genocide studies in the country. It includes courses in history, literature, psychology, government, sociology, film, and music. A special feature of this program is the May Term in Prague and Terezin in the Czech Republic, which, every other year, brings a group of Clark undergraduates to central Europe for an intensive three-week course that includes visits to key Holocaust historical sites.

Clark is the first college or university anywhere to have two occupied fully-endowed, full-time tenured professorships in Holocaust history, as well as a professorship dedicated to the study of the Armenian genocide.

3/2 Engineering Program

The 3/2 engineering program consists of three years of studies at Clark followed by two years at an affiliated engineering school. The program leads to a bachelor of arts degree from Clark after four years and, after the fifth year, a bachelor of science in engineering from the engineering school. Clark offers 3/2 engineering programs with Columbia University, Washington University, and WPI. For more information, contact program coordinator Professor Charles Agosta in the physics department.

Academic Advising

The Academic Advising Center helps students plan their academic programs through a coordinated set of activities and services. All new students are assigned a faculty adviser who helps them select courses and programs. Once a student has chosen a major, academic advising is coordinated by faculty within the student's major department.

Among the Academic Advising Center's support services are:

- The Writing Center: Recognizing the importance of writing in all fields, Clark offers cross-disciplinary, departmental, and special writing-center programs. Supplementing the curriculum, Clark's Writing Center provides individual tutoring and noncredit workshops for all interested students. Writing-center offerings are flexibly designed to help students at all levels achieve clear, correct, graceful writing.
- Special Needs Services: These services are designed to foster functional independence for students with special learning needs. Students with documented disabilities may enroll in these services. The coordinator of disability services offers advising and academic assistance and helps students negotiate reasonable accommodations. An early orientation for eligible first-year students is also part of these services.

Other Academic Support Services

- **Language Arts Resource Center:** The Center provides video and audio tapes as well as access to satellite broadcasts of international news and programs to assist students learning a foreign language. The center is located on the fourth floor of Goddard Library.
- **Goddard Library Public Services—Reference Desk:** Students working on research projects may receive assistance at the reference desk on the use of the extensive research resources of Clark University libraries as well as the Colleges of Worcester Consortium library system.

American Language and Culture Institute (ALCI)

Clark University's American Language and Culture Institute, known to students around the world as ALCI, offers intensive ESL programs for students who want to improve their English-language skills for academic or professional reasons. Through experiential learning, students receive a thorough orientation into American culture. ALCI serves as a resource for international undergraduates, graduate and Worcester-area community students for whom English is a second language, providing further opportunities in the training of speaking the English language, orientation to American life and culture, and preparation for successful university study.

Instruction is offered at up to five levels of proficiency, beginning through academic preparation. Dedicated, trained professionals provide 20 or more hours per week of intensive ESL instruction as well as private tutorial sessions. Students are entitled to many services offered by the University including the Goddard Library, computer laboratories, athletic facilities, social activities, campus lectures and day trips to local and regional places of interest.

Colleges of Worcester Consortium

Clark is a member of the Colleges of Worcester Consortium, which means that Clark sophomores, juniors, and seniors can enroll for one course a semester at Anna Maria College, Assumption College, the College of the Holy Cross, Worcester Polytechnic Institute, Worcester State College, the University of Massachusetts Medical School, Tufts University Veterinary School, Becker College, or Quinsigamond Community College.

Consortium Gerontology Studies Program

The Worcester Gerontology Studies Program is offered through the Colleges of Worcester Consortium. Courses related to aging are available at various consortium colleges, reflecting the multidisciplinary nature of gerontology. This program provides courses and internships in a coordinated curriculum leading to a certificate in gerontology. Career planning for participating students is organized through the Consortium Office in coordination with on-campus career services.

For further information about the Gerontology Studies Program, contact David Stevens, Clark Department of Psychology, the program adviser; or Judy Gardner Ainlay, program coordinator at 508-754-6829, ext. 3017.

First-Year Seminars

(Offered in 2003-2004)

As a first-year student you have the option to participate in one of the first-year seminars which are intensive, stimulating and challenging courses with no more than 15 students each. They are taught by experienced professors who are also advisers. Space is limited, so it is best to sign up as soon as possible. Follow the directions on page 18 to sign up for a seminar, but please note that enrollment is not guaranteed.

ARTS 128 DRAWING A SENSE OF PLACE

Students will engage the environment of Worcester by drawing on site at a variety of locations, from abandoned factories to Victorian parks, from a littered railbed to a wooded Quaker cemetery. By actively looking, we will forge a connection to this city, while recognizing other relationships to place—including the archetypal places we carry or inhabit within ourselves. The emphasis will be on learning how to see where we are and be more fully aware of how this relationship to place defines us. Globalization, Internet intimacy, easy mobility and politics may all influence our understanding and feelings about place, but there is perhaps nothing so immediate and illuminating as the act of simply perceiving and translating the world around us. Artists who have referenced or manipulated “place” in their work will also be studied. Fulfills the aesthetic perspective. Faculty: Elli Crocker, M.F.A., Associate Professor of Studio Art

CHEM 101.2 INTRODUCTORY CHEMISTRY

Hands-on demonstrations and laboratory exercises, together with a detailed analysis of key experiments in the historical development of our understanding of chemistry, will be used to introduce topics normally covered in Introductory Chemistry lectures. Practical applications—such as the preparation of contact explosives and pyrophoric materials—will be used to illustrate chemical principles, including measurements, atomic and molecular theory, moles, aqueous reactions, electronic configuration, bonding, thermochemistry, behavior of gases and intermolecular forces. Students are expected to do extensive work outside of class on text-related material to allow class time for demonstrations and discussion. One year of high-school chemistry (with a grade of B or better) required. Two years recommended. Fulfills the science perspective. Faculty: Mark Turnbull, Ph.D., Professor of Chemistry

CLAS 120 THE EPIC JOURNEY

Students in this seminar will read examples of ancient epic literature, beginning with the Sumerian Epic of Gilgamesh and including the Book of Exodus, Homer’s “Iliad” and “Odyssey” and Vergil’s “Aeneid.” The unifying idea in the course will be the concept of the hero and of heroic action in varying cultural contexts: Sumerian, Biblical, Greek and Roman. We will explore the qualities, which epic heroes seem to have in common from one culture to another; attention will also be paid to the elements of heroic action which appear to be culturally or religiously determined. The heroism of Gilgamesh or Odysseus, for example, is quite different from that of Moses or Aeneas. Our job will be to define those differences and to attempt to account for them. Fulfills the comparative perspective.

First preference for enrollment in this course will be given to students in the International Studies Stream. Others will be admitted on a space-available basis. Faculty: Paul Burke, Ph.D., Professor of Classics; Adjunct Professor of History

ECON 100 BIRTH, DEATH AND ECONOMICS: THE ECONOMICS OF WORLD POPULATION

In the time it takes to read this course description the world population will have increased by about 151 people. Almost all of that increase will be in the countries of the less developed or developing world, countries that already include about 80 percent of the world’s people. The more developed world, by contrast, has essentially reached a stage of zero population growth. Our own lives are seriously influenced by the magnitude and behavior of others. You smoke, I cough. You sneeze, your friends catch a cold. The size of the world’s population doubles and.... The behavior of others has impact well beyond their own cities, countries and regions. The focus of this seminar is on population and economics. We will seek to gain an understanding of the factors determining and influencing population and of connection of the population to individual

well-being. In the process, we will study the principles of economics and demography, use demographic simulation software and acquire an appreciation for the role of population in society. Fulfills the comparative perspective.

While this seminar carries International Studies Stream designation, no preference for enrollment will be given to ISS students. Faculty: Maurice Weinrobe, Ph.D., Professor of Economics

ENG 113 THE LITERATURE OF BASEBALL

Baseball has often been cited as “America’s game,” in the sense that it is thoroughly interwoven into the history of American culture. Many writers, particularly in the 20th century, have seen in the game fertile ground for describing their interpretations of the American experience. It is a game, which offers tremendous variety within rigidly set boundaries. In short, baseball is a metaphor to which Americans return over and over to express their sense of identity. This course will explore this general theme: Why is baseball so attractive to American writers of all types, and how do they use the game and its players as the basis for suggesting who we are?

Fulfills the verbal-expression requirement. You must have been placed at the verbal-expression level to select this seminar. Faculty: James Elliott, Ph.D., Associate Professor of English

ENG 188 THE CITY IN AMERICAN LITERATURE

This seminar will explore the emergence and development of the city as a central setting, theme and metaphor in American fiction over the past two centuries. Beginning by surveying the gothic and sentimental visions of the city that characterized the antebellum period, we will continue with examinations of turn-of-the-century naturalist and realist urban novels, continue through such 20th-century subgenres as the 1920s immigrant novel and the 1950s noir detective novel, and end with an examination of several postmodernist and cyberpunk fictions of our own day. The class will address central questions about the relationships

between literature and society, fantasy and reality, form and setting. To what extent do these urban fictions reflect the social and historical realities of the cities they describe, and to what extent are they utopian or dystopian fantasies? What sorts of threats and promises, pleasures and dangers does the city seem to represent in different eras, and to different authors? How do various authors imagine the sensations, structures, and rhythms of urban living? In what ways do the gender, race, sexuality, and class of the central characters shape their perceptions of life in the city? Authors to be covered may include Theodore Dreiser, Edith Wharton, Anzia Yezierska, Henry Roth, James Baldwin, Toni Morrison, Raymond Chandler, Thomas Pynchon and William Gibson.

Fulfills the verbal-expression requirement. You must have been placed at the verbal-expression level to select this seminar. Faculty: Heather Roberts Ph.D., Associate Professor of English

FREN 112/CMLT 112 FAIRY TALES OF THE WORLD

Fairy tales are among the oldest and simplest forms of literature. They communicate archetypal patterns of human experiences and societal behavior; they reflect human wisdom of all ages derived from all cultures, and their moral teaching is universal and universally applicable. This course will apply a variety of critical analysis methods to a selection of fairy tales from different countries, with an emphasis on the Brothers Grimm and Perrault.

Fulfills the verbal-expression requirement. You must have been placed at the verbal-expression level to select this seminar. Faculty: Beth Gale, Ph.D., Assistant Professor of Foreign Languages and Literatures

FREN 108/TA 108 THE THEATER OF REVOLT IN MODERN FRANCE

This seminar traces, from 1897 to 1970, the various experimental movements in French theater that attempted to chart a divergent dramaturgical path from the realistic-naturalis-

tic style dominant in the 20th century. The term revolt refers both to an aesthetic and an ideological phenomenon. We look at the way that a number of playwrights sought to reinvent theatrical form in order to challenge conventional modes of representing the world. The seminar explores how experimental theater redefines questions of aesthetics, social and psychological ideologies and politics. To do this, we will consider the various relationships between theater, painting, music and film.

Fulfills the verbal-expression requirement. You must have been placed at the verbal-expression level to select this seminar. Faculty: Michael Spingler, Ph.D., Professor of Foreign Languages and Literatures

GEOG 010 ENVIRONMENT AND CULTURE

Students will be introduced to major works in the humanities and sciences, which have contributed to a current environment consciousness. The interrelation of nature and human culture within the last 200 years in North America will be the primary focus of our course. Writers studied include Henry David Thoreau, Charles Darwin, Aldo Leopold, Rachel Carson, Henry Beston, Donald Worster and Annie Dillard. The seminar will offer several field trips and opportunities to “read” landscapes.

Fulfills the historical perspective. First preference for enrollment in this seminar will be given to students with a strong interest in Clark’s environmental concentration or the environmental science and policy major. Others will be admitted on a space-available basis. Faculty: Douglas Johnson, Ph.D., Professor of Geography

GEOG 187 THE IMAGE OF THE WORLD: THE HISTORY OF MAPS AND MAP MAKING

An introduction to the history of cartography centered around the idea of the map as the “mirror of culture.” That is, how cartography, while being set against a geographical background, has always been deeply connected to

historical events, trends in intellectual thought, changes in society and advances in technology. The course will range worldwide, cover a time-period from earliest times to the present and deal with the products of explorers, surveyors, mariners, philosophers, scientists, writers, politicians and others. Use will be made of the holdings in the University Map Library and the Rare Book Room, and may also involve outside field trips.

Fulfills the historical perspective. First preference for enrollment in this course will be given to students in the International Studies Stream. Others will be admitted on a space available basis. Faculty: Harry Steward, Ph.D., Associate Professor of Geography

GOVT 102 WOMEN AND WAR

This seminar examines the impact of war on women as both victims (i.e. refugees, rape victims) and participants (i.e. warriors) as part of the larger understanding of women’s role in society. The course will introduce students to the theoretical approaches in international relations for understanding the connection between gender and war. Various case studies of wars (Bosnia, Afghanistan, Kosovo) will be explored. Questions to be considered include: How do we understand gender, particularly in conflict situations? How does war affect women and men differently? How does militarization and conflict perpetuate patriarchal power arrangements?

Fulfills the comparative perspective. Faculty: Kristen Williams, Ph.D., Assistant Professor of Government

HIST 033/AS 033 CONFUCIANISM, DAOISM, BUDDHISM: THE CULTURAL HERITAGE OF CHINA

This seminar explores the three major intellectual traditions of China—Confucianism, Daoism and Buddhism—with special attention to the historical development of these traditions and their impact on the history of China. After reading some of the major early philosophical and religious writings in these three traditions, we will explore the profound impact

of Confucian, Daoist and Buddhist values on Chinese history and culture into modern times.

Fulfills the historical perspective. First preference for enrollment in this seminar will be given to students in the International Studies Stream. Others will be admitted on a space-available basis. Faculty: Paul Ropp, Ph.D., Professor of History

ID 182 ARE WE MODERN YET?

This seminar asks what it means for places and peoples to be modern. We begin by exploring when and where the imperative toward modernity began. We examine the economic, political and cultural dimensions of modernity. We question the Eurocentric ideas that claim that modernity was a western enterprise exported to the rest of the world. Next, we examine colonialism, nationalism and Third-World development as specific projects of modernity. Examples from Latin America and the Caribbean will help focus the discussions for this section of the seminar. Finally, we engage current debates about the projects of modernity and ask: Have modern forms of knowledge and institutions borne out their promise? Or is modernity in crisis? Are we moving toward a postmodern era? Throughout the seminar, we will highlight how certain notions of race and gender shaped ideas about modernity.

Fulfills the historical perspective. First preference for enrollment in this seminar will be given to students in the International Studies Stream. Others will be admitted on a space-available basis. Faculty: Kiran Asher, Ph.D., Assistant Professor of International Development, Community and Environment

MGMT 020 STRIKES IN AMERICA

Strikes are the most exciting, controversial and unpredictable events in labor relations. In this seminar, we examine the evolution of strikes in the United States from their early use for organizing workers to their later use during collective bargaining. We examine the workers' right to strike and the employers' right to replace

strikers, the various forms of strikes, the theory and practice of striking, the unions' reliance on community coalitions and political allies during strikes and the ways that unions and employers manage legitimacy during strikes. The class will review the causes, tactics and outcomes of several recent strikes including those of nurses, baseball players, engineers, janitors, longshoremen, coal miners, teachers and slaughterhouse workers. Finally, we ask whether strikes are still effective in this age of globalization, plant relocation, low union membership, public indifference and management's frequent use of striker replacements.

Fulfills the values perspective. Faculty: Gary Chaison, Ph.D., Professor, Graduate School of Management

MUSC 016 MUSIC IN 20TH-CENTURY AMERICAN CULTURE

Music was one of the most vibrant and meaningful elements of 20th-century American culture. This seminar will cover major forms of American popular music, notably Blues, Jazz, the American popular song from Foster through Cole Porter to Dylan, rock and country music. Along with extensive listening work, the course will focus on exploring ways in which music was taken up by the cultural discussion of the times. Also at issue will be how music functioned as a social practice that negotiated basic tensions inherent to American society, especially those around race, and the changing ways in which music has functioned within the culture industry. This course will be concerned primarily with discussion and explication of readings and music. Readings will be drawn from a range of music criticism and other writings about music. In addition, students will be involved in a series of projects including short papers, small-group studies and in-class presentations.

Fulfills the aesthetic perspective. Faculty: Benjamin Korstvedt, Ph.D., Assistant Professor, Visual and Performing Arts

PHIL 100 THE GOOD LIFE

As human beings, we all want to live good lives. We want to be happy and to avoid suffering. But what can a person do to have a “good life”? What makes one life “good” and another life “not good”? Does luck play a role in making a life good? These questions have been at the core of what philosophers call “ethics” for more than 2,000 years. In this seminar, we will use philosophical, biographical and literary works to explore some of the ways that we particular human beings organize our lives, set fundamental goals and values that we seek to realize and try to assess what constitutes a “good life.” Our seminar will examine a range of possible life aims including the search for pleasure, cultivating wealth and power, contributing to the public good, seeking spiritual fulfillment and having no aim at all.

Fulfills the values perspective. Faculty: Walter Wright, Ph.D., Associate Professor of Philosophy

PHIL 104 THE AIDS PANDEMIC

The Human Immunodeficiency Virus (HIV) and the Acquired Immune Deficiency Syndrome (AIDS) present American society with a public-health challenge of unprecedented dimensions—a challenge which will test not only our scientific and medical establishments, but our commitment to social justice, professional fidelity and interpersonal solidarity. This seminar will draw on the rich philosophical, biological, epidemiological, legal, medical and sociological literatures in order to examine a number of the moral and public-policy issues, which have been raised by the HIV epidemic. Particular attention is given to the issues raised by the international nature of the pandemic.

Fulfills the verbal-expression requirement. You must have been placed at the verbal-expression level to select this seminar. Faculty: Patrick Derr, Ph.D., Professor of Philosophy

PHIL 109 DAVID HUME AND HIS CRITICS: SKEPTICISM VS. BELIEF

Does God exist? Do we have freedom of the will? Can we acquire real knowledge about the world? These are some of the perennial questions of philosophy. David Hume, an 18th-century Scottish philosopher, is famous for answering all of these questions in the negative, and his answers have deeply affected the modern world. In this seminar, we grapple with these and other fundamental issues, by looking at Hume’s arguments and those of his most powerful critic, Thomas Reid. An excellent introduction to philosophy.

Fulfills the verbal-expression requirement. You must have been placed at the verbal-expression level to select this seminar. Faculty: Michael Pakaluk, Ph.D., Associate Professor of Philosophy

PSYC 193 DISCOURSE, SELF AND GENDER

This seminar attempts to explore through the lens of discourse how people make sense of themselves as “gendered beings,” with a focus on the construction of “masculinity.” Since this course carries the Language and Culture perspective, it is expected that students will acquire the basic skills in grammar and syntax necessary for in-depth analyses of language. Students will be expected to commit themselves to a high-level academic atmosphere and to a challenging work load that will result in stimulating class discussions.

Fulfills the language and culture perspective. Faculty: Michael Bamberg, Ph.D., Professor of Psychology

PSYC 196 PSYCHOLOGY THROUGH HISTORY

This seminar will help students get a head start for a future in psychology from an interdisciplinary focus. This course entails the investigation and discussion of great literary and philosophical works that have a profound influence on today’s academic psychology. Students will learn the contextual relevance that surrounds

the past and present. Students will also learn to efficiently and rigorously investigate and report on texts significant to psychology.

Fulfills the historical perspective. Faculty: Jaan Valsiner, Ph.D., Professor of Psychology

TA 153 MODERN DRAMA

This course is designed to introduce the student to the major dramatic writers from the 19th century to the present. In studying the plays, a number of different points of view and reference will be considered including that of the playwright, the actor, the director, the historian and the dramaturge. The student is encouraged to formulate a personal opinion of these plays and dramatists. The major focus of the course is the text and the student's understanding and interpretation of the work.

However, a strong emphasis will also be placed on the performance aspect of these plays. This can take many forms, including coordination of our efforts with theater classes on campus, field trips to theaters nearby, use of video and even staged readings of the scripts in class.

Fulfills the verbal-expression requirement. Faculty: Gino DiIorio, M.F.A., Assistant Professor of Theater

Selection Process

- Please go to www.clarku.edu/fys to fill out the online selection form.
- If you are in the International Studies Stream, your choices for seminars must be made from those seminars with ISS designation.
- To select a writing-intensive seminar (one which fulfills the verbal-expression requirement), you must have been placed at the verbal-expression level (see All About Your Academic Program). If you were not placed at the verbal-expression level but feel that your writing ability is sufficiently strong enough to take a verbal-expression course, you may submit two graded high-school papers for review. You may select a verbal-expression seminar as your first choice, but be sure to provide nonverbal-expression seminars as alternate choices.
- It is important to provide alternate choices for your seminar selection. Please number your choices in order of preference.
- Please note that selecting a seminar does not mean you will be enrolled in one. These seminars are popular, space is limited, and enrollment is not guaranteed.
- If you have any questions, please call the Academic Advising Center at 508-793-7468 or e-mail advising@clarku.edu.



International Studies Stream



The International Studies Stream (ISS) is an innovative option within Clark's program of liberal studies that offers students the opportunity to structure their broad liberal-arts education by focusing on international themes and issues.

To succeed in contemporary society, students must be familiar with the different ways common problems—such as economic growth, immigration, social welfare, and environmental regulation—are dealt with across the globe. Students need to understand the historical, social, and political foundations for these differences, and they need to be able to assess their own societies within an international context.

The ISS helps students understand the implications of global integration for cultural identity, economic growth, peace, security, and development. Language and cultural studies provide the skills necessary for effective participation in the global economy.

The ISS infuses students' educational experiences with an international perspective. Through courses, guest speakers, internships, and study-abroad opportunities, the International Studies Stream provides the broad-based international experience students will need in our increasingly global society.

A flexible curriculum

The foundation of the ISS is a set of courses with an international focus and enhanced language training designed to place the experience of the United States and other countries in global context.

The curriculum incorporates the best elements of undergraduate teaching: team-taught interdisciplinary courses; small classes taught in seminar format; genuine language proficiency, developed in part through study outside the

United States; extension of academic activities beyond the classroom through field trips, speakers programs, and other informal activities; and careful mentoring of students.

The ISS recognizes that success in most careers now requires international perspective and language skills. The ISS curriculum can be combined with any major, and is flexible enough to address the educational needs of aspiring bankers, journalists, attorneys, physicians, grassroots organizers, and many others.

International Studies Stream Requirements

Students in any major may participate in the International Studies Stream. The program is intended to provide focus for a student's studies rather than to impose many additional requirements. The stream includes a broad range of courses and extracurricular activities from which students can select to create an appropriate, challenging program of study. Successful completion of the stream will be designated on students' transcripts.

Requirements for the stream are:

- **The core course: IDND 066 Global Society**—The globalization of cultural, economic, and political life is one of the defining modernist themes of the 20th century. The signs of international interdependence are everywhere, from the rise of Japanese automobile factories in the heartland of the United States to the success of Hollywood movies in eastern Europe and beyond. And yet in the midst of the apparent triumph of globalization, diverse examples of fragmentation and local action and initiative also capture our attention. The great international institutions of the 20th century—the United Nations, the World Bank, and the new World Trade Organization—are also challenged by ethnic nationalism, economic protectionism, and growing introspection on the part of many countries. This course provides

a wide-ranging introduction to these twin themes of global and local action, and serves as the foundation for study within the International Studies Stream at Clark University. Fulfills the values-perspective requirement. Staff/Offered every year

- **A first-year seminar with an international focus**—ISS students choose from several First-year seminars during their first semester at Clark. These courses include no more than 15 students and allow participants to focus on an academic area in depth. The course instructor serves as the academic adviser for all students in the course. See course descriptions at the end of this section for a sample of ISS first-year seminars.
- **Program of Liberal Studies (PLS) requirements**—All Clark undergraduates are required to complete eight PLS courses: a verbal-expression course, a formal-analysis course, and six perspectives courses. Students in the International Studies Stream automatically satisfy at least four of the eight PLS requirements by taking internationally focused courses in the aesthetic perspective, comparative perspective, historical perspective, language and culture perspective, and values perspective. Students may fulfill the verbal-expression requirement in or out of the stream; the formal analysis and scientific perspective requirements are not part of the stream. See the perspectives course listings at the end of this section.
- **Expanded foreign language proficiency**—Beyond the PLS language and culture perspective requirement, ISS students complete two additional semesters of language study or demonstrate competence equivalent to two years of language study at the college level. Clark offers courses in French, Spanish, German, Russian, Japanese, Chinese, and Hebrew. Proficiency tests for other languages can be arranged.

- **Study-abroad experience**—U.S. students in the ISS must complete at least one unit of study outside of the United States. They may participate in a semester or yearlong study-abroad program, a May-term or summer course, or an internship. Clark study-abroad sites include Namibia, England, Scotland, China, France, Germany, Japan, Luxembourg, or Spain. For further information see page 10, “Office of Study Abroad Programs.” International students, whose study-abroad experience is at Clark, complete an internship with an international agency in the United States, or a research project focused on an international issue. Please note: ISS participation is not required to participate in study-abroad programs.

Courses

IDND 066

See course description above. Fulfills the historical perspective requirement. The following courses are the list of 2003 First-year seminars.

CLAS 120: THE EPIC JOURNEY

Students in this seminar will read examples of ancient epic literature, beginning with the Sumerian Epic of Gilgamesh and including the *Book of Exodus*, Homer's *Iliad and Odyssey*, and Vergil's *Aeneid*. The unifying idea in the course will be the concept of the hero and of heroic action in varying cultural contexts: Sumerian, Biblical, Greek, Roman. We will explore the qualities which epic heroes seem to have in common from one culture to another; attention will also be paid to the elements of heroic action which appear to be culturally or religiously determined. The heroism of Gilgamesh or Odysseus, for example, is quite different from that of Moses or Aeneas; our job will be to define those differences and to attempt to account for them. First preference for enrollment in this course will be given to students in the International Studies Stream. Others will be admitted on a space available basis. Fulfills the comparative perspective requirement. Mr. Burke

ECON 100: BIRTH, DEATH, AND ECONOMICS: THE ECONOMICS OF WORLD POPULATION

In the time it takes to read this course description the world population will have increased by about 151 people. Almost all of that increase will be in the countries of the less developed or developing world-countries, which already include about 80 percent of the world's people. The more developed world, by contrast, has essentially reached a stage of zero population growth. Our own lives are seriously influenced by the magnitude and behavior of others. You smoke, I cough. You sneeze, your friends catch a cold. The size of the world's population doubles and... The behavior of others has impact well beyond their own cities, countries, and regions. The focus of this seminar is on population and economics. We will seek to gain an understanding of the factors determining and influencing population and of connection of the population to individual well-being. In the process, we will study the principles of economics and demography, use demographic simulation software, and acquire an appreciation for the role of population in society. While this seminar carries International Studies Stream designation, no preference for enrollment will be given to ISS students. Fulfills the comparative perspective requirement. Mr. Weinrobe

FREN 108 / TA 108 THE THEATER OF REVOLT IN MODERN FRANCE

The seminar traces, from 1897-1970, the various experimental movements in French theater that attempted to chart a divergent dramaturgical path from the realistic-naturalistic style dominant in the 20th century. The term revolt refers both to an aesthetic and an ideological phenomenon. We look at the way that a number of playwrights sought to reinvent theatrical form in order to challenge conventional modes of representing the world. The seminar explores how experimental theater redefines questions of aesthetics, social and psychological ideologies, and politics. To do this, we will consider the various relationships between the-

ater, painting, music, and film. You must have been placed at the verbal-expression level to select this seminar. First preference for enrollment in this seminar will be given to students in the International Studies Stream. Others will be admitted on a space-available basis. Fulfills the verbal-expression requirement. Mr. Spingler

GOV 102 WOMEN AND WAR

This seminar examines the impact of war on women as both victims (i.e. refugees, rape victims) and participants (i.e. warriors) as part of the larger understanding of women's role in society. The course will introduce students to the theoretical approaches in international relations for understanding the connection between gender and war. Various case studies of wars (Bosnia, Afghanistan, Kosovo) will be explored. Questions to be considered include: How do we understand gender, particularly in conflict situations? How does war affect women and men differently? How does militarization and conflict perpetuate patriarchal power arrangements?

First preference for enrollment in this seminar will be given to students in the International Studies Stream. Others will be admitted on a space-available basis. Fulfills the comparative perspective requirement. Ms. Williams

HIST 033/AS 033: CONFUCIANISM, DAOISM, BUDDHISM: THE CULTURAL HERITAGE OF CHINA

This seminar explores the three major intellectual traditions of China—Confucianism, Daoism, and Buddhism—with special attention to the historical development of these traditions, and their impact on the history of China. After reading some of the major early philosophical and religious writings in these three traditions, we will explore the profound impact of Confucian, Daoist and Buddhist values on Chinese history and culture into modern times. First preference for enrollment in this seminar will be given to students in the International Studies Stream. Others will be admitted on a space-available basis. Fulfills the historical perspective requirement. Mr. Ropp

ID 182: ARE WE MODERN YET?

This seminar asks what it means for places and peoples to be modern. We begin by exploring when and where the imperative toward modernity began. We examine the economic, political and cultural dimensions of modernity. We question the Eurocentric ideas that claim that modernity was a western enterprise exported to the rest of the world. Next we examine colonialism, nationalism and third world development as specific projects of modernity. Examples from Latin America and the Caribbean will help focus the discussions for this section of the seminar. Finally, we engage current debates about the projects of modernity and ask: Have modern forms of knowledge and institutions borne out their promise? Or is modernity in crisis? Are we moving toward a postmodern era? Throughout the seminar we will highlight how certain notions of race and gender shaped ideas about modernity. First preference for enrollment in this seminar will be given to students in the International Studies Stream. Others will be admitted on a space-available basis. Fulfills the historical perspective requirement. Ms. Asher

PHIL 104: THE AIDS PANDEMIC

The Human Immunodeficiency Virus (HIV) and the Acquired Immune Deficiency Syndrome (AIDS) present American society with a public health challenge, of unprecedented dimensions — a challenge, which will test not only our scientific and medical establishments, but our commitment to social justice, professional fidelity, and interpersonal solidarity. This seminar will draw on the rich philosophical, biological, epidemiological, legal, medical, and sociological literatures in order to examine a number of the moral and public policy issues which have been raised by the HIV epidemic. Particular attention is given to the issues raised by the international nature of the pandemic. Fulfills the verbal-expression requirement. You must have been placed at the verbal-expression level to select this seminar.

First preference for enrollment in this seminar will be given to students in the International Studies Stream. Others will be admitted on a space-available basis. Mr. Derr

Follow-up Courses

In spring 2003, these courses were designated as follow-up courses to Global Society IDND 066.

GEOG 127 POLITICAL ECONOMY OF THIRD WORLD UNDERDEVELOPMENT

Mr. Peet/Offered periodically
See Geography.

IDCE 050 LOCAL ACTION, GLOBAL CHANGE

Mr. Bell/Offered periodically
See International Development and Social Change.

GOVT 177 TRANSITION TO DEMOCRACY

Ms. Sperling/Offered every other year.
See Government and International Relations.

ISS Perspectives Courses

The following courses are approved for credit in the International Studies Stream. See department listings for course descriptions.

Aesthetic Perspective

ARTH 010 STONE AGE TO OUR AGE: MONUMENTS AND MASTERPIECES OF WESTERN ART

Mr. Townsend, Mr. Bailey, Ms. Grad/Offered every semester

ARTH 155 ART OF AFRICA, OCEANIA, AND NATIVE AMERICA

Ms. Borgatti/Offered every year

ARTH 156 ART OF BLACK AFRICA

Ms. Borgatti/Offered every year

ARTH 160 ARTS OF ASIA

Mr. Bailey/Offered every other year

ARTH 161 ARTS OF ISLAM

Mr. Bailey/Offered every other year

CMLT/SCRN 121 SURVEY OF INTERNATIONAL FILM MOVEMENTS

Mr. D'Lugo/Offered every other year

SPAN/CMLT/SCRN 246 STUDIES IN SPANISH CINEMA

Ms. Butzel/Offered every other year

SCRN 101 INTRODUCTION TO SCREEN STUDIES

Ms. Butzel/Offered every semester

SCRN/SPAN 248 INTRODUCTION TO CINEMA IN LATIN AMERICA

Mr. D'Lugo/Offered every other year

SCRN/FREN 263 HISTORY OF FRENCH CINEMA

Ms. Butzel/Offered every other year

Comparative Perspective

CIGP 161 CULTURAL IDENTITIES AND GLOBAL PROCESSES

Ms. Bhachu/Offered every year

CMLT 130 THE NATIONAL IMAGINATION

Staff/Offered every year

ECON 010 ECONOMICS: A COMPARATIVE APPROACH

Staff/Offered every semester

ECON 100 THE GLOBAL ECONOMY

Mr. Bernhofen/Offered periodically

ECON 177 CHINESE AND JAPANESE ECONOMIES

Mr. Hsu/Offered every other year

FREN/ID 158 THE FRENCH-SPEAKING WORLD

Ms. Kaufmann/Offered every other year

GEOG 016 INTRODUCTION TO INTERNATIONAL ECONOMIES

Mr. Peet/Offered every year

GEOG 030 IMMIGRANTS AND THE CITY: THE WORLD COMES TO WORCESTER

Ms. Hanson/Offered periodically

GEOG/ID 127 POLITICAL ECONOMY OF UNDERDEVELOPMENT

Mr. Peet/Offered every year

GEOG 152 GEOGRAPHY OF GLOBALIZATION

Ms. Aoyama/Offered Periodically

GEOG 170 DIVIDED CITIES, CONNECTED LIVES

Ms. Hanson/Offered every other year

GEOG 179/ID 174 INTERNATIONAL POLITICAL ECOLOGY

Ms. Rocheleau/Offered every other year

GOVT 070 INTRODUCTION TO COMPARATIVE POLITICS

Ms. Enloe/Offered every year

GOVT 208 COMPARATIVE POLITICS OF WOMEN

Staff/Offered every other year

HIST 124 ETHNICITY AND NATIONALISM IN MODERN EUROPE

Mr. Borg/Offered every year

HIST 251 COMPARATIVE STUDY OF REVOLUTIONS: THE FRENCH REVOLUTION OF 1789 AND THE BEGINNINGS OF MODERN REVOLUTIONS

Mr. Lucas/Offered every other year

ID/PSTD/HIST 050 LOCAL ACTION GLOBAL CHANGE

Ms. Thomas-Slayter/Offered every year

ID 170 ECOLOGY AND ECONOMY IN THE TROPICS

Staff/Offered every year

ID 120 INTRODUCTION TO SOCIAL ANTHROPOLOGY

Staff/Offered regularly

ID/GEOG/GOVT/PSTD 125 DEVELOPMENT PROBLEMS

Ms. Thomas-Slayter/Offered every year

ID 212 WOMEN AND SOCIAL CHANGE

Ms. Thomas-Slayter/Offered every other year

PSTD 120 INTERNATIONAL CONFLICT MANAGEMENT

Mr. DeRivera/Offered periodically

SOC 100 INTRODUCTION TO SOCIOLOGY

Staff/Offered every semester

SOC 256 CLASS, STATUS, AND POWER

Ms. Tenenbaum, Mr. Ross/Offered every semester

Historical Perspective**HIST/GOVT/ID 103 AFRICA AND THE WORLD**

Ms. Grier/Offered every year

HIST 062 WAR AND PEACE IN THE MIDDLE EAST

Mr. Little/Offered periodically

HIST 070/071 OUR EUROPEAN ROOTS

Mr. Lucas/Offered every year

HIST 080 INTRODUCTION TO MODERN ASIA

Mr. Ropp/Offered every other year

HIST 084 JAPANESE CIVILIZATION

Staff/Offered periodically

HIST 177 LATIN AMERICA 1825

Staff/Offered periodically

HIST/AS 181 CHINESE CIVILIZATION

Mr. Ropp/Offered every other year

HIST 182 MODERN CHINA: 1880 TO THE PRESENT

Mr. Ropp/Offered every other year

HIST 184 MODERN JAPAN

Staff/Offered every other year

HIST 255 GLOBAL RELATIONS: 20TH CENTURY

Mr. Richardson/Offered periodically

Language and Culture Perspective**CHIN 101/102 INTRODUCTORY CHINESE**

Staff/Offered every year

COMM/FREN 136 STUDIES IN FRENCH CULTURE: IDENTITIES AND DIFFERENCE

Ms. Kaufmann/Offered every year

FREN 101/102 ELEMENTARY FRENCH I, II

Mr. Spingler/Offered every year

FREN 103 ELEMENTARY FRENCH INTENSIVE

Staff/Offered every year

FREN 105/106 INTERMEDIATE FRENCH I, II

Mr. Spingler/Offered every semester

FREN 120 WAYS OF WRITING, WAYS OF SPEAKING

Ms. Kaufmann/Offered every year

GERM 101/102 INTRODUCTORY GERMAN

Mr. Kaiser/Offered every year

GERM 103/104 INTERMEDIATE GERMAN I, II

Mr. Hughes/Offered every year

GERM 131 SPOKEN AND WRITTEN GERMAN

Mr. Kaiser/Offered every year

GERM 134 WORKSHOP IN TRANSLATION

Mr. Hughes/Offered every year

GERM 140 MODERN GERMAN PROSE

Mr. Hughes/Offered every other year

GERM 156 THE MODERN GERMAN SHORT STORY

Mr. Hughes/Offered every other year

GREEK 101/102 INTRODUCTORY GREEK

Mr. Burke/Offered every year

HEBR 101/102 ELEMENTARY HEBREW I, II

Ms. Barone/Offered every year

HEBR 103/104 INTERMEDIATE HEBREW I, II

Ms. Barone/Offered every year

HEBR 105 ADVANCED HEBREW

Ms. Barone/Offered periodically

HEBR 199 ADVANCED TOPICS

Ms. Barone/Offered periodically

JAPN 101/102 ELEMENTARY JAPANESE I, II

Ms. Aoki/Offered every year

JAPN 103/104 INTERMEDIATE JAPANESE I, II

Ms. Aoki/Offered every year

JAPN 105 ADVANCED JAPANESE

Ms. Aoki/Offered every year

LATIN 101/102 INTRODUCTORY LATIN

Ms. Sun/Offered every year

RUSS 101/102 INTRODUCTORY RUSSIAN

Ms. Macaulay/Offered every year

RUSS 103/104 INTERMEDIATE RUSSIAN

Ms. Macaulay/Offered periodically

RUSS 299 ADVANCED TOPICS—RUSSIAN LITERATURE AND GRAMMAR

Ms. Macaulay/Offered periodically

SPAN 101/102 ELEMENTARY SPANISH

Staff/Offered every semester

SPAN 103 ELEMENTARY SPANISH INTENSIVE

Staff/Offered every semester

SPAN 105/106 INTERMEDIATE SPANISH

Staff/Offered every semester

SPAN 127 PRACTICE IN ORAL AND WRITTEN SPANISH

Staff/Offered every semester

SPAN 131 READINGS IN HISPANIC LITERATURES

Staff/Offered every year

Values Perspective

IDND 066 GLOBAL SOCIETY

Mr. Peet/Offered regularly

HIST 272 19TH- AND EARLY 20TH-CENTURY EUROPEAN VALUES (CIRCA 1800–1930)

Mr. Lucas/Offered every other year

HIST 033 CONFUCIANISM, BUDDHISM: CULTURAL HERITAGE OF EAST ASIA

Mr. Ropp/Offered periodically

ID/GOVT 232 SOCIAL JUSTICE, HUMAN RIGHTS, AND DEVELOPMENT

Staff/Offered periodically

PHIL 105 PERSONAL VALUES

Staff/Offered every semester

PHIL 107 AIDS: ETHICS AND PUBLIC POLICY

Mr. Derr/Offered periodically

PHIL/PSTD 130 MEDICAL ETHICS

Mr. Derr/Offered every semester

PHIL 132 SOCIAL AND POLITICAL ETHICS

Ms. DeCew/Offered every semester

PHIL 150 PHILOSOPHY OF RELIGION

Mr. Wright/Offered periodically

PHIL 221 SOCIAL AND POLITICAL PHILOSOPHY

Ms. DeCew/Offered every other year

PSTD 170 INTRODUCTION TO PEACE STUDIES

Mr. DeRivera/Offered every year

SOC 204 THE HOLOCAUST: A STUDY OF GENOCIDE

Ms. Tenenbaum/Offered every year

SPAN 152 HISPANIC LITERATURE OF POLITICAL COMMITMENT

Mr. Ferguson/Offered periodically

Verbal Expression

CMLT 125 CROSSING BOUNDARIES

Ms. Kaufmann/Offered periodically

GERM/CMLT 188 THE CULTURE OF THE WEIMAR REPUBLIC

Mr. Schatzberg/Offered periodically

HIST 032 AFRICA'S 21ST CENTURY: THREE ALTERNATIVE MODELS

Staff/Offered regularly

Participating Faculty

David P. Angel, Ph.D., *geography: urban/ economic geography, social theory*

Michiko Aoki, Ph.D., *Japanese language and culture*

Yuko Aoyama, Ph.D., *economic geography, regional planning*

Michael Bamberg, Ph.D., *psychology: first and second language acquisition, narratives, discourse analysis, cross-linguistic/cross-cultural comparison*

David Bell, E.D., *education: empowerment, social transformation, international development*

Parminder Bhachu, Ph.D., *Henry R. Luce Professor of Cultural Identity and Global Processes: construction of identities and ethnicities, immigration diasporas, women and wage labor markets, nationalist churches and global processes*

Paul F. Burke Jr., Ph.D., *foreign languages and literature: Greek and Latin language and literature, classical mythology, classical art and archaeology*

Joseph DeRivera, Ph.D., *psychology: the structure and function of different emotions; the relationships between emotion and action; the social psychology of peace and justice*

Patrick Derr, Ph.D., *philosophy: philosophy of science, biomedical ethics, history of modern European philosophy, ethical issues in hazards management*

Carol D'Lugo, Ph.D., *foreign languages and literatures: Spanish and Spanish-American narrative, literary theory*

Marvin D'Lugo, Ph.D., *foreign languages and literatures and screen studies: Hispanic literature and film, narrative theory*

William Ferguson, Ph.D., *foreign languages and literatures: Spanish Golden Age literature, 20th-century Hispanic literature*

Beverly Grier, Ph.D., *government and international relations: African politics, international development, women's studies, U.S. black politics*

Robert Hsu, Ph.D., *economics: economic development, comparative economic systems, international economics*

Douglas Little, Ph.D., *history: U.S. diplomatic history, U.S. 20th-century history*

Bruce London, Ph.D., *sociology: technology and society; community; sociology of the Third World; social demography*

Richard Peet, Ph.D., *geography: political economy of development, social theory, geography of consciousness*

Dianne Rocheleau, Ph.D., *geography: political ecology; gender; forestry/agriculture/land use; culture/power/environment/development*

Paul Ropp, Ph.D., *history: Chinese, social, and intellectual history*

Robert Ross, Ph.D., *ISS director, sociology: urban studies, political sociology, political economy, social policy*

Walter Schatzberg, Ph.D., *foreign languages and literatures and comparative literature: age of Goethe, German expressionism in literature and the arts, German cinema, relations between literature and science*

Valerie Sperling, Ph.D., *Post-Soviet and East European politics, comparative politics, social movement and collective action, women's studies*

Michael Spingler, Ph.D., *foreign languages and literature: French theater and film, comparative drama, translation*

Barbara Thomas-Slayter, Ph.D., *international development and social change: local institutions and organizations, women and public policy, peasant-state relations, gender issues*

Maurice Weinrobe, Ph.D., *economics: monetary economics, economics of population*

Kristen Williams, Ph.D., *government and international relations: international relations, arms control and international security; nonviolent responses to nationalist and ethnic conflict*

Note: In addition to the above faculty, who teach regularly in the program, other faculty members from a number of departments are active participants in the International Studies Stream, have research interests in this area, and offer courses that include a significant international component.

For more information about the International Studies Stream, contact:
Robert J. S. Ross, Ph.D., Director of the ISS,
Clark University, 950 Main Street,
Jefferson Academic Center, Room 405,
Worcester, MA 01610.
508-793-7181.
Web page: www.clarku.edu/ISS



Tuition and Financial Aid

Summary of Tuition and Other Charges for First and Second Semester of 2003-2004 Academic Year

Tuition \$26,700

Room:

Single room	4,830
Singles within suites	5,144
Double room	3,150
Double within suites	3,520
Triple room	3,150
Board (compulsory for first- and second-year students)	2,000
Student Activity Fee	265

Charges that apply to new students only:

Contingency Deposit (refundable)	50
Orientation Fee	200
Early Orientation	250

Other Fees

Clark Student Health Insurance, single	\$857
\$2,147 student/spouse	
\$1,994 student/child	
\$3,126 student/two or more dependents	

Students will be required to enroll in the Clark Insurance Plan unless they complete a waiver card stating they have other coverage.

Application Fee (undergraduate)	50
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Deposits:

Admission Deposit	300
Residence Hall Deposit	100
Tuition Deposit (upperclass students)	300

Note: Costs are subject to change from year to year.

General Information

Tuition, board, residence-hall charges, and certain fees are due and payable prior to the beginning of each semester. The dates for 2003-2004 are: July 25, 2003 for fall semester and December 15, 2003 for spring semester. Students are not permitted to register for any semester until all financial obligations have been arranged satisfactorily with the University.

A budget payment plan is available and is explained later in this section.

There is a late fee of \$50 assessed against all accounts not paid in full by the July and December due dates. In addition, interest at the rate of 1 percent per month (12.7% APR) will be charged on all past-due balances (including tuition deposit). If a student fails to fulfill his or her financial obligations and their account is referred to a collection agency, all fees are the responsibility of the student.

Payment Options

Clark offers several payment alternatives to the usual tuition payment each semester. These options may be used individually or in combination with each other to best suit the needs of Clark families.

- 1. Monthly Payment Plan:** Clark University, in cooperation with Tuition Management Systems, makes available a flexible, interest-free payment plan. This plan allows a family to make 10 equal monthly payments beginning in June. You determine the amount of the bill to be covered—all or only a portion. The \$55 application fee is the only charge. Tuition payment insurance is automatically included.
- 2. Family Education Loan:** Clark University is one of a few schools to offer this fixed-rate, supplemental, education loan. This loan allows families to borrow up to the full cost of tuition at a low fixed interest rate. In addition, the loan may be secured with home equity to allow for possible tax benefits. A variable rate option is also available. Contact the Office of Financial Assistance for details.

3. Tuition Inflation Hedge: Under this program, Clark University offers families the option of fixing the tuition rate for four years at the first-year level. To do so, families pay four years of full tuition during the first year, at the current rate, avoiding any increases in tuition for the following three years.

For more information and an application, please contact the associate controller/bursar at (508) 793-7498.

All past balances will be subject to interest charge of 12 percent per year.

Transcripts

Transcripts must be requested in writing from the Office of Student Records. There is no charge for enrolled students for unofficial transcripts. Official transcripts cost \$4 each. Transcripts are not issued to students with outstanding financial obligations.

Refund Policies

General Refund Policy

Students who officially withdraw or take an official leave of absence from the University are required to submit paperwork to the Dean of Student's Office. A student who officially withdraws during the first one-tenth of the semester will be charged 10 percent of his/her tuition, room, board, and mandatory fees; after the first tenth, but before the end of the first quarter, he or she will be charged 50 percent; after the first quarter, but before the end of the second quarter, he or she will be charged 75 percent. There is no reduction in charges after the second quarter of the semester. If a student withdraws from school, but continues to avail himself/herself of services, he/she will be charged for those services.

Study-Abroad Refund Policy

Due to the special conditions for payments to overseas programs, a different policy is necessary. Students who are studying abroad should refer to the documentation provided when they are accepted in the program for specific information on the refund policy.

Medical Refund Policy

If a student's doctor recommends that he/she leave the University for medical reasons within the first half of the semester, and later a decision is made that the student must officially withdraw, charges are calculated in accordance with the schedule above based on the date of the doctor's initial recommendation that the student leave the University. The doctor's letter must be an original on letterhead.

Normal Program and Course Load Variance

A normal full-time academic program is eight course units per year (four course units per semester). Students may elect to vary this pattern by taking three course units during any semester. A course load of three courses per semester is a full-time course load and is billed accordingly. Juniors and seniors who have received College Board permission may choose to take five courses in a semester at no additional charge. All students must complete a minimum of seven full-time semesters to meet degree requirements. Students may enroll in two units per summer. While there is no limit to the total number of summer courses students may take, normally only four units may be counted toward graduation.

Seniors in their last semester are expected to take the necessary number of units (up to five) for their degree. Full-time first-year or transfer students, in their first semester at Clark University, must enroll in a four-course program. Students re-entering the University, or returning from leaves of absence, also must enroll in a four-course program during their first semester. Nontraditional students should consult with the dean of the college.

Orientation Fee

A fee of \$200 is assessed to all new students to cover services and activities provided during orientation. Early orientation is \$250 and spring orientation is \$100.

Contingency Deposit

All new undergraduates are required to pay a \$50 deposit to cover minor charges, such as unreturned library books, which may be incurred during the year. Students are billed each year for whatever charges are incurred. The balance is refunded upon completion of studies.

Housing Deposit

The \$400 fee submitted by first-year students to Admissions includes a \$100 housing deposit. Each spring, a deposit of \$100 is required of students in order to enter the room selection process. The deposit is credited towards the yearly housing fee and is nonrefundable.

Application Fee

A fee of \$50 must accompany the application for admission to the University. It is not refundable.

Student Activity Fee

A fee of \$132.50 per semester, levied and administered by the Student Council, is required of all matriculated undergraduates except those on a program of study abroad. The Student Council allocates funds to student organizations that provide a wide range of cultural, social, and recreational activities.

Admission Deposit

For entering students planning to live on campus, a nonrefundable admission deposit of \$300 and a housing deposit of \$100 are required to indicate acceptance of an offer of undergraduate admission. For students planning to live off campus, only the \$300 admission deposit is required. Deposits are credited toward charges for the first semester in attendance at Clark. Deposits are forfeited if the student does not enroll for the specified semester.

Tuition Deposit

A deposit of \$300 is required of all students planning to return to the University for their sophomore, junior, or senior years. It is payable by June 1 and is credited toward charges for the fall semester; the deposit of \$300 is forfeited if the student does not enroll for the specified semester.

Clark OneCard

An identification card is issued during orientation to all new students without charge and is your official college ID. Your Clark OneCard looks like an ordinary University ID, but it's much more than that. The wide magnetic strip on the back of your Clark OneCard acts as a key to a number of services on campus including access to residential and academic buildings, the Kneller Athletic Center, Goddard Library, meal plans, computer account password, and the CashCard Program. Use a single card for all your transactions.

The CashCard Program works like cash and you can use it at both on- and off-campus venues. On-campus venues include Café Bon Appetit, Higgins Bistro, Moonlight Café, General Store, Clark Print & Copy Center and Clark Bookstore. Off-campus venues include Domino's Pizza, Fantastic Pizza, and PepperCorn's Grille. Vending machine snack, beverage, and laundry will be added in the near future.

The cardholder should report a lost or stolen card immediately to the ID office located in Geography 101 or to Bon Appetit Food Services. A fee is charged to replace lost, stolen or damaged cards.

Keys and Key Security

Room keys, mailbox combinations, and residence hall entry cards are issued to students upon their arrival at Clark. Fees are charged for the replacement of keys and cards that are lost during the year, and it is mandatory to return room keys and entry cards before leaving campus at the end of the academic year.

FINANCIAL AID

The Office of Financial Assistance provides guidance to all students who need assistance financing their Clark education.

Student Employment

Student employment opportunities at Clark include on- and off-campus part-time jobs and full-time summer employment, coordinated by the Office of Financial Assistance. At the

beginning of each semester, Clark students with federal work-study awards receive a listing of available on-campus jobs and may choose a job best suited to their abilities and interests. It is important to note that an offer of Federal Work Study as part of a student's financial-aid package is not a guarantee of that amount, but rather a limit of potential earnings. Students receive paychecks for actual hours worked that can be used for personal expenses, books, and supplies or saved for future bill charges. The Office of Financial Assistance also maintains a list of on- and off-campus jobs available to students not receiving federal work-study awards. The average number of hours worked each week for students who receive Federal Work Study is between 10 and 12 hours.

General Information

Financial aid is allocated on the basis of financial need and academic performance. Special talent in music, art, and other areas, as well as leadership ability, also are considered. The Office of Financial Assistance assesses each student's financial circumstances and need through a uniform analysis of the Free Application for Federal Student Aid (FAFSA) for federal and state funds, and the PROFILE Form for institutional funds. When required, adjustments are made in accordance with University policies and procedures. The assessment takes into account family income and assets, age of parents, financial commitments to other dependents and members of the family, and other circumstances.

The University expects that a student's resources for education will come first from family and his/her own savings and earnings. The University will make every effort to assist most students in obtaining the difference between the total cost and expected family resources. No student should fail to apply for admission to Clark University because of the inability of his/her family to pay total educational costs.

Independent Sources of Aid

All applicants for financial aid are urged to pursue independent sources of financial aid. Clark cannot replace outside funds for which a student is eligible but fails to apply. Scholarships are often awarded to graduating seniors by high schools and/or private scholarship agencies in students' local communities.

Additional information usually is available in guidance offices or online at www.fastweb.com.

Any assistance received from outside sources other than Clark University must be reported to the Office of Financial Assistance on the Award Acceptance Agreement form or in writing to the Office of Financial Assistance. These awards may affect your Clark financial-aid package.

Clark's policy for this adjustments are as follows: For scholarships derived from meritorious sources that are in recognition of a particular achievement of the student, unmet institutional need will be filled first. Any remaining scholarship will reduce loan, then work-study. If there is additional remaining scholarship, it will reduce Clark grant, dollar for dollar.

Private grants/scholarships derived from nonmeritorious sources (state or federal grants or tuition subsidies based on parents' employment) will reduce Clark grant, dollar for dollar.

An important source of federal financial aid is offered in the form of Federal Pell Grants. These grants, which vary in amounts, are available to certain students who demonstrate financial need according to federal methodology. All applicants for financial aid are required to apply for a Federal Pell Grant. Students may do so by listing Clark University in the college release section of the FAFSA.

Federal Stafford Loans are available to all students, regardless of need. Students may borrow up to \$2,625 their freshman year, \$3,500 sophomore year, and \$5,500 the junior and senior years of an undergraduate program. Students may borrow up to \$8,500 per year of a graduate program. The subsidized version is limited to students who demonstrate financial need according to federal methodology. It is a

variable interest rate capped at 8.25 percent. No payments are due, nor does interest accrue, until after graduation or until a student is enrolled less than half-time. It may be deferred for continued education. The unsubsidized version offers the same terms and conditions; however, interest begins to accrue during the in-school period.

Veteran's benefits may be available for service veterans and children of deceased or disabled veterans. Eligibility can be determined by contacting the local Veterans Administration Office.

Rehabilitation Assistance may be available for students who qualify for educational benefits. Information concerning rehabilitation services can be obtained at the State Rehabilitation Office.

Aid Awarded by Clark University

Clark University makes a commitment to entering students during their first year and in each subsequent year at Clark, as long as they continue to demonstrate financial need, continue to meet the standards of satisfactory academic progress, have filed all necessary application materials by the required deadlines, and have not exceeded program limitations of financial aid, and as long as federal and state funding to Clark's Office of Financial Assistance continues at the same level. Although any Clark student may apply for aid as an upperclassman, funding is guaranteed only to those students who received aid their first year at Clark and have met the above requirements.

Assistance at Clark is packaged in the form of scholarship, loan, grant, and/or employment from the following sources:

- **Clark University Scholarships**—a portion of the University income is reserved for this purpose, and gifts from alumni, parents, and friends provide additional scholarship funds. Eligibility for Clark Scholarships is determined under institutional methodology used in the analysis of the aid application materials.

- **Federal Supplemental Educational Opportunity Grants**—one of three campus-based federal-aid programs available to college students demonstrating exceptional financial need. Continued support of this program is contingent upon annual Congressional allocations.
- **Federal Perkins Loans**—one of three campus-based federal-aid programs available to college students demonstrating exceptional financial need. Loans made under this program carry a fixed 5 percent interest rate. Payment of principal and accrual of interest is deferred until after graduation or until a student is enrolled less than half-time. The loans carry a 10-year repayment schedule with a \$40 monthly minimum. Continued support of this program is contingent upon annual Congressional allocations and the repayments of previous recipients.
- **Federal Work Study**—one of three campus-based federal student-aid programs. This work program allows eligible students the opportunity to work during the school year to earn money for personal expenses, travel, books, and supplies, and over the summer to earn money towards the following school year's educational expenses.
- **Presidential and Achievement Scholarships**—awarded to exceptional students on a competitive basis.

Satisfactory Academic Progress

Students receiving federal financial assistance of any type (including parent loans) are required to make “satisfactory academic progress” toward their degree. Satisfactory academic progress is defined by regulations of the U.S. Department of Education as “proceeding

in a positive manner toward fulfilling degree requirements.” This is differentiated from “academic standing,” which refers to students whom the institution allows to continue to enroll.

Full-time bachelor's degree candidates must maintain a 2.0 cumulative grade-point average and complete five courses the first year; six courses the second; and seven courses each year thereafter. These requirements are prorated for less than full-time students and students attending less than a full academic year. Evaluation of satisfactory academic progress is made at the end of each spring term.

Students who are determined not to be making satisfactory academic progress are allowed one semester of continued assistance under probation status in order to obtain the necessary requirements for maintaining progress. If students are still not making progress after one semester of probation, aid is discontinued. Students are allowed only one semester of probation while at Clark. Appeals to this policy for special and unusual circumstances may be made in writing to the director of financial assistance.

Students are limited to eight undergraduate semesters of institutional (Clark) financial aid, unless otherwise approved by the director. Appeals should be written to the director of financial assistance.

Endowed Scholarships

Most grants awarded by the University are designated Alumni and Friends Scholarships. Funds for these scholarships are derived from named endowed funds. Because of the various restrictions placed on these funds, it is the policy of the University to select eligible recipients.

Return of Title IV Funds (federal and some state financial aid):

Title IV fund rules assume that a student earns his or her aid based on the period of time he or she remained enrolled for the term. Unearned aid, other than work-study, must be returned to the U.S. Department of Education up until the 60 percent point in the term. At the 60 percent point in the term, the student is considered to have earned all of his or her aid.

Return of Institutional Financial Aid

Students are allowed to retain institutional (Clark grants and scholarships, including academic scholarships) financial aid at the same rate that the credit to tuition (refund) policy is calculated. That is to say, a student leaving or withdrawing in the first tenth of a semester has earned 10 percent of their institutional financial aid, students leaving or withdrawing in the first quarter are allowed to retain 50 percent of their financial aid, students withdrawing during the second quarter may retain 75 percent of their aid, and students leaving or withdrawing after the second quarter may retain 100 percent of their Clark financial aid.

Financial Assistance for International Student

The Admissions and Financial Aid Committee, in keeping with Clark University's commitment to a strong international presence on campus, provides financial assistance to a limited number of international students each year. Competition for this assistance is extremely keen and the awards are based on both academic merit and financial need. Since the ability to meet the cost of attendance at Clark University must be taken into consideration, the admissions process is need aware. Several applicants each year show excellent academic records but do not demonstrate the financial ability necessary to meet the full cost of attendance. It is not unusual for the committee to deny an application on financial grounds even though the applicant is academically qualified.



Undergraduate Admission Requirements



First-Year Student Admission

Clark University welcomes applications from men and women regardless of race, color, sex, sexual orientation, religion, age as defined by law, handicap, national origin or financial condition. Selection is competitive and based primarily on academic promise as indicated by secondary-school performance, recommendations and standardized test (SAT, ACT) scores. Secondly, decisions reflect consideration of the individual experience and particular circumstances unique to each candidate.

Entrance Requirements

A diploma from an accredited secondary school or G.E.D. equivalency is required for admission to Clark. The academic preparation for successful candidates should include four years of English; three years of mathematics; three years of science; two years of both a social science and a foreign language; and other credit electives, including the arts, recognized in the secondary-school curriculum. The University is most concerned with the strength of the student's academic program and therefore recommends this framework of courses. However, the University values diversity and understands that some students may be following different high-school curricular patterns.

The Application

Students applying to Clark should contact the Admissions Office for an application, or they may use the Common Application or various electronic applications. The admissions staff has no preference for any one application form, but may request supplemental information when needed. A nonrefundable application fee of \$50 or official fee-waiver request must accompany the application. Transfer and

international students should contact the Admissions Office for specific supplemental forms.

Clark University
Admissions Office
950 Main Street
Worcester, MA 01610-1477
Telephone: 508-793-7431
Fax: 508-793-8821
Email: admissions@clarku.edu
www.clarku.edu

Students applying for financial assistance should refer to information provided in the “Undergraduate Tuition and Financial Aid” section of this catalog.

Early Admission

Exceptional students are invited to apply for early admission after the junior year when encouraged and supported by enthusiastic recommendations from their secondary schools.

Early Decision

If Clark University is clearly your first choice, we encourage you to apply “early decision.” By signing the early-decision statement you agree that, if admitted, you will withdraw all other college applications. The early-decision deadline is November 15, with notification by early January. A candidate who is “deferred” under early decision will automatically be reconsidered for regular admission in March.

Regular Admission

Candidates for admission in September should apply as early as possible, usually during the first grading period of their final year of secondary school. The deadline for applications and supporting credentials is February 1 or January 15 to be considered for merit-based scholarships. (November 1 for January admission.)

Admission Tests

All U.S. first-year students are required to submit results of the SAT I or American College Test (ACT).

If English is not your primary language, you should submit scores from the Test of English as a Foreign Language (TOEFL). Successful candidates usually score 213 or better. (See section on International Admissions.)

Interviews and Campus Visits

Interviews are not required but are strongly recommended. The most informative way to learn about Clark University is to spend a day on campus. Prospective students are invited to take tours, sit in on classes and meet students and faculty members. Please call, write or e-mail the Admissions Office for information regarding interviews, tour schedules, and directions.

If you cannot visit the campus, we encourage you to talk with one of the University's alumni admissions representatives in your area. Contact the Admissions Office for details.

Admission Notification and Deposits

Admissions decisions for September are released on or about April 1. Clark subscribes to the Candidate's Reply Date of May 1 and requires a nonrefundable deposit that is credited toward first-semester charges. January applicants can expect to receive an admission decision by mid-December with the commitment deposit due within two weeks of notification.

Deferred Admission

Students who want to postpone enrollment must submit a request in writing by the assigned deadline. A nonrefundable deposit that is credited toward first-semester charges is required. Students who undertake full-time academic work in the interim may not defer enrollment but must reactivate their applications by submitting official transcripts for review.

Advanced Standing

Students may earn advanced standing with scores of 4 or 5 on Advanced Placement (AP) tests administered by the College Entrance Examination Board, submission of certain international educational credentials (i.e., International Baccalaureate, Albitur, A-Levels, etc.) and by transferring credit from college-level course work.

International Admission

Clark uses a separate International Application for Admission for non-U.S. citizens, which may be obtained by contacting the Admissions Office. Because of the sequential nature of University courses, Clark encourages all international students to apply for the fall semester (deadline February 1).

The Test of English as a Foreign Language (TOEFL) is required of all candidates whose native or official language is not English. Information concerning test dates and locations may be obtained by writing to: TOEFL, P.O. Box 6151, Princeton, NJ 08541-6151 U.S.A. or at www.toefl.org. Students who have completed four or more years of U.S. secondary-school education—in the U.S. or abroad—should submit results of the SAT I or ACT standardized tests. The Certificate of Eligibility (I-20 form), necessary to obtain a student visa, will be granted only after full admission and receipt of complete financial documentation (in the form of an official bank statement indicating a monetary amount).

Transfer Admission

Clark welcomes applications for admission with advanced standing from students attending two- and four-year institutions. A separate transfer application is required, which can be obtained by contacting the Admissions Office. Applicants for September should file by April 15; January applicants by November 1. All transfer candidates are required to submit evidence of good standing, complete transcripts of all previous academic work—secondary and postsecondary—including standardized tests (if taken) and any other information requested by the Admissions Committee, such as recommendations and course catalogs.

Normally, credit is given for academic courses in the liberal arts previously taken at accredited colleges and universities and by advanced standing procedures, described above. No credit is given for grades lower than C. Evaluation of credits for college courses is made at the time of admission or upon receipt of final transcripts and is used in planning a program of study at the University. Up to 50 percent of Clark's degree and major requirements may be awarded on this basis, and a minimum of two academic years at Clark is necessary for completion of degree requirements.



Requirements for a Bachelor's Degree



Academic credit toward the bachelor of arts degree is expressed in terms of course units. Each Clark course is awarded one unit (equivalent to four credit hours). To earn a bachelor's degree, a student must complete a minimum of 32 course units (128 credit hours) with a minimum 2.0 grade-point average. He/she must receive a C- or better in at least 24 of these courses. Successful bachelor of arts degree candidates must also complete all institutional, major departmental, and program of liberal studies requirements for graduation. Transfer credit for students with fewer than 32 courses in residence is established by the Transfer Evaluation Committee. Students may accelerate their progress toward graduation by no more than one semester without special approval of the College Board. For the purpose of transfer, a full Clark course is equivalent to four semester hours of credit.

Transfer Credit

To earn a bachelor's degree at Clark, a student must earn at least one half of the total number of course units for the degree and at least one half of the total number of course units taken for fulfillment of a major in a Clark program. Students must be enrolled full time at Clark for both semesters of their senior year. Units earned through Clark programs off campus also meet the requirement. External credit is credit earned in the following categories:

1. Advanced placement
2. Credits transferred from other American colleges and universities
3. Credit earned in foreign-study programs administered by American or foreign institutions of higher learning other than Clark.

The amount of transfer credit that can be applied to a bachelor's degree at Clark is limited by category.

1. No more than one semester (four units) may be granted in advanced placement (A.P.). A.P. credit is defined as one unit of degree credit assigned for a score of 4 or 5 on a CEEB A.P. examination taken prior to matriculation and before the student formally enrolls. Students also may receive credit for college work completed prior to their matriculation at Clark University if that credit is in a content area deemed academically acceptable to Clark, and is from an accredited college or university. Finally, students may apply for advanced placement credit based on course work or exams taken in international programs (e.g., International Baccalaureate, A levels, etc.).
2. Students transferring to Clark from another institution may transfer in no more than 16 units of course credit. Students who begin their course work at Clark may subsequently transfer up to 12 units of course credit from other schools.
3. Normally, no more than one year (eight course units) may be taken in study-abroad programs.

Academic Regulations

Full-time study is defined as a three- or four-course program. Normally undergraduates carry four courses per semester. Full-time students must enroll in three or more courses per semester. Students should consult their faculty adviser, or in some cases, the Academic Advising Center or major departments when questions about course or program selection arise. With approval from the College Board, juniors and seniors with a minimum GPA of 3.0 in their prior semester, or with a minimum cumulative GPA of 3.0, may enroll in a fifth course.

While first-year students and sophomores may choose any course designated by a department as open to them, 200-level courses are normally designed for juniors and seniors. Juniors and seniors may elect any 100- or 200-

level course, provided they have met all required prerequisites and have the permission of the faculty member, if necessary.

Undergraduates may be admitted to 300-level graduate courses with the approval of the instructor.

Grades

Grades are an indication of individual performance in each course taken at the University. At Clark, four grading options are currently in use:

1. Graded courses: This option uses the symbols A, B, C, D, and F with the modifying symbols “+” and “-” for A, B, and C. The lowest passing grade is D.

The faculty has approved the following qualitative description of grades:

A indicates work of distinction, of exceptionally high quality

B indicates good work, but not of distinction

C indicates average work and satisfaction of University degree requirements

D indicates marginal work

F indicates unacceptable work

2. The Pass/No Record Option: This option uses the symbols P and NR. P indicates work at a level of C- or better. Neither the P grade nor its credit is included in the calculation of the grade-point average. Performance below a C- results in a No Record (NR) grade. NRs do not appear on students' transcripts. Students must choose this grade option at registration. There is no limit to the number of NR grades that a student may receive. However, NR grades do not carry credit and are not counted toward graduation or University requirements.

3. The Credit/No Credit Option: This grading option, assigned by the University to a course, uses the symbols CR/NC. CR indicates work at a level of C- or better. The NC is treated like an F.

Grade-point averages are calculated by the University to determine academic good standing, annual and January academic honors, Latin honors at graduation, and eligibility for various honor societies. The grade-point average is calculated as the average of grades earned in all Clark University graded courses. Neither external credit nor ungraded Clark University courses are included in this calculation.

Pass/No Record Option

The availability of the pass/no record option is designed to offer students the opportunity to take a course, usually unrelated to their major, without risking a negative impact on their GPA.

All students should bear in mind that the majority of graduate and professional schools have expressed a preference for graded transcripts and encourage applicants to have graded courses. Preprofessional students and those for whom graduate school is a goal should exercise caution in selecting the pass/no record option. Students who are interested in attaining honors, such as Phi Beta Kappa, Dean's List, and Latin honors at graduation, also should exercise use of the option cautiously.

Noncredit Audit Status

With the permission of the instructor, full-time degree students are eligible to register as auditors in any course. There is no additional charge for this privilege. Part-time matriculated students also may register as auditors with the permission of the instructor and the payment of a per course fee. In limited or sectioned courses, regularly enrolled Clark students are given preference for available openings.

Matriculated students who successfully complete audited courses (this determination is made by the instructor) also will have the audited courses posted on their permanent records.

Withdrawal From Courses

A student may withdraw from a course at any time during the first week of classes without having a W recorded on his/her transcript. Students may withdraw from a class up until the end of the 10th week of classes, but any withdrawal after the first week of the semester will result in a W being recorded on the transcript. Students compelled to withdraw from a course due to exceptional circumstances (e.g., serious illness) may petition the College Board for the Withdrawal with Reason (WR) transcript notation for the course.

Incompletes

A record of incomplete may be permitted by approval of the College Board or dean of the college only when sickness or some other unavoidable circumstance prevents completion of the course. Individual instructors may not assign incompletes without the approval of the College Board or dean of the college. A record of incomplete incurred in the fall semester must be made up no later than the following April 1; if incurred in the spring semester, it must be made up no later than the following Oct. 1. If a course is not completed within the specified time, the record of incomplete is changed to F.

Registration

All continuing undergraduates are expected to register in November for the spring semester and again in April for the following fall semester. Registrations must be finalized by the end of the first week of classes each semester. Notification of the dates for registration is given, and failure to register within the announced period results in a late fee.

Examinations

Final examinations are given at the end of most courses. Approximately one week is set aside for each examination period, and an attempt is made to distribute examinations for

individual students evenly throughout this period. Absence from a final examination, except for the most compelling reasons, may result in a failure for the course.

Comprehensive final exams are not to be given (or to be due) during the last week of class nor during the scheduled reading period. Other examinations and tests may be given at any time during the course at the discretion of the instructor.

Class Attendance

There is no universitywide class attendance policy. However, many individual instructors do set attendance requirements for their courses.

Student Absence Due to Religious Beliefs

According to Massachusetts state law, any student who is unable, because of his or her religious beliefs, to attend classes or to participate in any examination, study, or work requirement on a particular day, will be excused from that requirement. He/she will have an opportunity to make up any examination, study, or work requirement missed because of such absence, provided the makeup examination or work does not create an unreasonable burden on the University. No fees will be charged by the University for making such opportunities available. No adverse or prejudicial effects will result to any students because of their availing themselves of these provisions.

Course Changes

Students may add and drop courses during the first week of the semester. Thereafter, a student may enter a course only with the permission of the instructor and the College Board or the dean of the college.

Classification of Students

All students who have not been required to withdraw at the end of the academic year will be promoted if they have satisfactorily completed the following number of courses:

To the sophomore class	6 units
To the junior class	14 units
To the senior class	22 units

Partial Programs

In special circumstances, students may be permitted by the dean of students or the dean of the college to register for a semester program of fewer than three courses. These students are designated as part-time students.

Guest And Special Students

Guest students from other colleges and universities who want to study at Clark for one or two semesters and special students who want to take only a few courses without enrolling as degree candidates may seek approval to do so. Students who wish to enroll as guest students should contact the Admissions Office. Those interested in special student status should contact the Office of Student Records.

Academic Standing

Academic standing is reviewed each semester and is based upon performance during the previous semester. All students are required to pass at least two courses each semester and to maintain a 2.0 grade-point average. In order to remain in good academic standing, first-year students must complete at least five courses with a minimum 2.0 grade-point average by the conclusion of their first year. Sophomores, juniors, and seniors must complete at least six courses with a minimum 2.0 grade-point average for the year. In addition, students may earn no more than eight D grades for credit towards graduation. Students who fail to meet these requirements will be placed on academic probation for the next semester for which they enroll at the institution.

Students who do not maintain academic good standing may be placed on academic probation or may be dismissed by the College Board or the dean of the college. The progress of students who are placed on academic probation is reviewed by the board at the end of the semester on probation.

Students on probation are expected to complete four courses with a 2.0 average or face a required withdrawal for the subsequent semester. A second required withdrawal requires the student to complete two courses at another institution within one semester with grades of C or higher, prior to their application for readmission to Clark. A third required withdrawal is final.

Academic Integrity

Academic integrity is a basic value for all higher learning. Simply expressed, it requires that work presented must be wholly one's own and unique to that course. All direct quotations must be identified by source. Academic integrity can be violated in many ways: for example, by submitting someone else's paper as one's own; cheating on an exam; submitting one paper to more than one class; copying a computer program; altering data in an experiment; or quoting published material without proper citation of references or sources. Attempts to alter an official academic record will also be treated as violations of academic integrity.

To ensure academic integrity and safeguard students' rights, all suspected violations of academic integrity are reported to the College Board. Such reports must be carefully documented, and students accused of the infraction are notified of the charge. In the case of proven academic dishonesty, the student will receive a sanction, which may range from an F in the assignment or course to suspension or expulsion from the University.

Leaves of Absence

A student who is in good standing may apply to the dean of students for a leave of absence, after which he/she may return to the University without formal application for readmission.

No Shows

Students who fail to enroll without taking a formal leave of absence will be administratively withdrawn from the institution. To be considered for readmission after this dismissal, students must apply to the dean of students.

Departmental Honors

Students may be admitted to a program leading to a bachelor's degree with honors in a particular major at the beginning of the junior year or, in some cases, at the beginning of the senior year. In most cases, each student will work with a faculty member who serves as his or her honors adviser and assists with planning the honors research and thesis during the student's junior and senior years. The program may include a maximum of six courses in which the student works under the adviser's supervision. In some cases, students must pass a comprehensive examination given by the department in the senior year.

Students should check with the major department to obtain guidelines for the specific requirements for honors before the end of the sophomore year (although in some departments, applications for honors may be made in the second half of the junior year).

Admission to an honors program does not relieve students of any of the standard major requirements. A student's candidacy for honors will be terminated at the end of any term in which he/she has not maintained a standard of work satisfactory to the department. If candidacy is terminated for any reason, the amount of

course credit to be allowed for honors courses will be determined by the College Board.

The department may recommend that a student graduate with honors, high honors, or highest honors. That recommendation is made to the dean of the college at the completion of the honors program and is announced at graduation. Consult individual departments for details concerning acceptance into their honors programs.

University Honors

Each semester, the dean of the college publishes a list of students who have distinguished themselves by outstanding academic performance in the preceding semester. Honors are awarded to the top students in each class based on semester grade averages.

Upon graduation, Latin honors are awarded at three levels: cum laude, magna cum laude, and summa cum laude. Latin honors are based on the following cumulative grade-point averages: summa cum laude, 3.80 and higher;

magna cum laude, 3.60-3.79; and cum laude, 3.40-3.59. Also, to be eligible for Latin honors, students must have completed at least 75 percent of their Clark courses with a letter grade.

Honor societies at Clark include the Society of Phi Beta Kappa, founded at the College of William and Mary in 1776 and dedicated to the recognition and encouragement of outstanding scholarly achievement in liberal studies. The Clark Chapter, Lambda of Massachusetts, was established in 1953. Gryphon and Pleiades is the senior honor society at Clark. Its 12 members include students who have outstanding records of academic achievements and leadership in campus extracurricular activities. The Fiat Lux Honor Society was created in 1988 as a student honor and service society recognizing combined qualities of scholarship and citizenship among Clark juniors and seniors. Qualifications for selection include a minimum 3.3 grade-point average and significant community service.



Facilities and Student Resources



Housing

Clark University provides housing for approximately 1,500 undergraduate students in eight residence halls and 14 houses. All first and second year students are required to live in University unless they are commuting from home. The Residential Life and Housing staff members are available to assist students with a variety of personal and academic concerns. The staff strive to create a "living and learning" environment through social, recreational and educational program opportunities. Dodd Hall is designated as an all-women residence hall. The remaining eight halls are co-educational. Currently, there are five smoke free residence halls. There are two residence halls designated exclusively for first year students and one residence hall designated for upper class students. Special interest housing opportunities include a "substance free house," a "quiet house," and a "year-round house." Additionally, those first year students who live a substance-free life and want to live in a residence hall may request a substance-free roommate.

New student assignments are made in late June and are mailed by mid-July. Returning students participate in the Room Selection process in April to select their rooms each year. Approximately, one-third of Clark students commute from home or live in private apartments in the immediate neighborhood. A limited listing of available apartments is compiled by and available at the Office of Residential Life and Housing.

Food Services

Bon Appetit Management Company is the University's food service provider. It operates three dining facilities: Higgins Bistro and Café Bon Appetit, both located in the Higgins University Center, and the Moonlight Café located in Dana Commons.

Café Bon Appetit is an all-you-can-eat facility serving breakfast, lunch and dinner. Daily menu items feature delicatessen, grilled and charbroiled food to order, fresh pasta, international fare, vegan and vegetarian options, and a full salad bar with soups and bread. Higgins Bistro is an a-la-carte restaurant with continuous service throughout the day. The menu includes fresh deli sandwiches, salads, grilled and fried items. Both facilities serve faculty, staff and students through the traditional meal plan, Clark cash card, or cash.

Moonlight Café, located on the second floor of Dana Commons, features personal pizzas, appetizers, grab-and-go sandwiches, salads, and beverages. Students, staff and faculty are invited for late-night food Tuesday through Saturday with their flex dollars, Clark cash card, or cash.

Health Services

The Clark University Health Service is a primary care outpatient clinic that provides on-campus health care to full-time matriculated undergraduate students. It is staffed by physicians, nurse practitioners, registered nurses, and support staff. The clinic, located on the first floor of Wright Hall at 30 Downing St., is open Monday through Friday 9 a.m. to 5 p.m. There is always a physician on call when the Health Service is closed.

Students may make an appointment at the Health Service with a clinician for diagnosis, treatment, follow-up, or counseling regarding health problems. Gynecological and contraceptive services are available.

Massachusetts law requires all full- and part-time students to enroll in a qualifying student health insurance plan offered by the University or in another health insurance plan with comparable coverage. Failure to submit proof of comparable coverage will result in a student being automatically enrolled in the Clark plan and charged accordingly. In compliance with state law, students may not register for classes until they are enrolled in an insurance plan.

Dean of Students Office

The Dean of Students Office is concerned with the academic and personal well-being of students. Professional counselors are available to assist students and can make referrals to off-campus agencies when necessary or requested. The deans provide confidential services to assist students both in and out of the classroom.

The Dean of Students Office publishes a student handbook, which outlines student support services, the code of general conduct, student activities, housing and residential programs, University committees, and standard University policies and procedures.

Career Services

The Career Services Office provides services and programs to assist students in making informed decisions regarding their career choices. Our professional staff offers assistance in career and graduate-school planning and in the internship and full-time job search. The following services and resources are available:

Career Advising – Staff are available to meet with students who want to discuss their choice of major and/or career and graduate school plans. Career advising helps students clarify their goals, preferences, skills and interests.

Career-Planning Events – Workshops are conducted each semester on topics such as resume writing and interviewing skills as well as a variety of panel presentations on specific career fields. Job fairs and graduate-school events are also coordinated every year to provide students with the opportunity to network without leaving campus.

Career Resources – The Career Services Library contains information on career fields, companies, internships, jobs and graduate study. Information on job-search techniques, as well as directories, annual reports and literature about specific employers is available.

Clark Career Exploration Program – CCEP is a four-year comprehensive program where students discover their interests and skills, explore a variety of possible career paths and their requirements, and develop plans for internships, full-time employment, graduate and profession-

al school. Through this program, students are encouraged to attend the career workshops and participate in alumni mentoring.

Internship Program – Career Services encourages students to participate in this academic experience that takes place in the field, allowing them to compare academic theory to actual practice while exploring various career options. Students have earned academic credit for working with many public, private and nonprofit organizations located throughout the county.

Letters of Reference Files – This service enables students to maintain letters of recommendation in our office for prospective employers, graduate schools or professional programs.

Prelaw Advising – The prelaw advising program provides services to undergraduates considering careers in law and facilitates the entrance of qualified students into law school. Located in the Career Services Office on 122 Woodland St., the prelaw advising program sponsors workshops, lectures and meetings; and provides informational materials for students. Watch appropriate bulletin boards and publications for announcements of important meetings and events. Students interested in pursuing law-school admission should contact Career Services or Professor Mark Miller in the Government and International Relations Department.

Recruiting Program – Clark students can connect with employers through on-campus company presentations, showcases, resume referrals and campus interviews. Career Services currently utilizes MonsterTRAK, a premiere Web-based recruiting system. All students are encouraged to create their profiles and register to begin their search on the system.

Community Engagement – The Community Engagement and Volunteering (CEV) Center assists students and faculty with finding a suitable community service project, and coordinates on-campus community engagement events.

The Career Services Office is located on 122 Woodland Street and is open Monday through Friday from 8:30 a.m. to 5 p.m. For more information, call 508-793-7258; e-mail

careers@clarku.edu; or visit the Web site at www.clarku.edu/offices/career.

Campus Security

The Clark University campus is served by a 12-officer police force, staffed by professionals deputized by the Commonwealth of Massachusetts. University Police are armed and have full arrest and policing powers.

Police take a proactive approach to campus security, offering educational programs to students, faculty, and staff on how to take precautions appropriate to an urban setting. University Police and Physical Plant maintain a network of 57 indoor and outdoor emergency telephones to ensure a quick response to security concerns. An escort service is available for students from 5 p.m. to 4 a.m. during the academic year within a quarter mile of the Clark campus. Clark University, as mandated by federal law, reports annually on the security of its campus. A copy of the Campus Security Report is available at Admissions House and University Police.

Facilities and Resources

Campus Libraries

The Robert Hutchings Goddard Library, named for the Clark physicist who invented the rocket technology that made space travel possible, is the academic heart of the University and an architectural landmark. Goddard is both a traditional and an electronic library with collections and services that are a combination of time-tested and brand new. The collections include more than 600,000 volumes, 289,658 monographs and subscriptions to 1,500 periodical titles. The library provides full Internet access and 70 end-user subject-specific data bases. As a member of the Colleges of Worcester Consortium, Clark offers students the use of eight academic consortium libraries and a combined local collection of more than 3.5 million volumes.

Goddard Library also offers a viewing area for videocassettes; a listening area for compact discs, records, and tapes; a language lab; microcomputers; and terminals linked to the campus

computing network. Through the University Computing Center, the Library's menu of electronic information sources including the Public Online Catalog is available 24 hours a day.

The Guy Burnham Map and Aerial Photography Library, founded in 1921, is an active cartographic information center. The collection, global in scope, contains over 200,000 maps and 7,500 aerial photographs, as well as atlases, journals, globes, map reference materials, and tourist information. A depository agreement with the U.S. Government Printing Office insures the availability of a full array of U.S. government maps. The library is located on the lower level of the Geography Building.

The Carlson Science Library, a branch of the Goddard Library, serves the disciplines of biology, chemistry, and physics. Located on the top floor of the Sackler Sciences Center, it houses selected science journals and a research collection of recent monographs. Full Internet access, as well as subject-specific databases, are provided.

Information Technology

At Clark, information technology permeates all aspects of campus life. E-mail and Web systems provide online access to information, services, communication and collaboration. The high-speed campus data network links all campus buildings, including residence halls, and the Internet. Wireless networking supports laptop mobility around the campus. Classrooms are networked and multimedia capable. Student computer labs provide access to specialized programs used in courses. Videoconferencing connects the campus to other locations, universities and laboratories. Walk-up kiosks provide quick network access as individuals go about campus.

The typical Clark student, faculty and staff routinely utilize this computing and networking environment in day-to-day activities. Students register for classes and access their records through "Web for Students." Students, faculty and staff universally use e-mail for personal and university communications. All also use the Intranet, Clark Commons, to access

comprehensive campus information, services, directories and forums. Faculty and students use the Web system, BlackBoard, to access course materials including syllabi, readings, images, recordings, videos, and online discussions. Faculty and students use the New Media Lab to produce the multimedia content for BlackBoard and other electronic publications. Everyone may publish a Web page. Campus events are webcast and archived for playback on demand. Student organizations offer discussions and "straw polls" on the Intranet forum, where any individual may also launch a discussion.

Automated systems support the entire range of University administration and operations. Campus service departments offer complete information and services on the Clark Web site, and academic departments publish full descriptions of majors and programs along with faculty profiles.

All faculty and staff are provided with networked computers. Most students bring a computer to campus. Student computer labs and kiosks are also provided throughout the campus, supporting the curriculum and complementing students' personal ownership. Desktops or laptops; Windows, Macintosh or Linux; wired and wireless: all are supported. The university provides information and assistance to help students, faculty and staff acquire the best computers and software at the best prices. Consulting, troubleshooting and training are also provided, including evenings and weekends.

These systems and services, for which students are charged no extra fees, are provided to the Clark community by Information Technology Services and the Office of the Vice President for Information Technology.

Science Facilities

The Arthur M. Sackler Sciences Center links the biology, chemistry, and physics departments and houses facilities for both teaching and research. Interdisciplinary programs, such as biochemistry and molecular biology, also are housed in Sackler. State-of-the-art scientific equipment, such as an electron microscope,

electron spin resonance (ESR) spectrometer and high-field nuclear magnetic resonance (NMR) spectrometers, serve Clark students and researchers, as well as others in the central Massachusetts region. A centralized science library and microcomputer rooms also are housed here.

Visual and Performing Arts Facilities

The Traina Center for the Arts, which opened in August of 2002, is a state-of-the-art facility for the visual and performing arts. The complex consists of a completely remodeled late 19th-century brick school building of Richardsonian design with a newly built hall for lectures, recitals, and screenings attached. Studios for painting, drawing, and graphic design together with a print-making studio, photography darkroom, exhibition gallery, visual resource library, multimedia lab, and high-tech classrooms create an integrated environment for the study, creation, display, and performance of studio art, art history, music, and film.

The Little Center Building and Theater is devoted to the creation of theatrical performances and includes a black-box theater, experimental theater, costume shop, design workshop, practice studio and classroom. The building also includes a fully equipped sculpture studio.

Estabrook Hall contains additional facilities for the arts, including music classrooms and practice rooms, the George F. and Sybil H. Fuller Foundation Center for Music, and senior studios for advanced studio-art students.

Athletic Facilities

The Kneller Athletic Center includes a gymnasium with three full-size courts for basketball and volleyball as well as space for indoor badminton, field hockey, running, lacrosse, soccer, and softball; a six-lane 25-yard swimming pool with one- and three-meter diving boards; four racquetball courts and two squash courts; two weight rooms; a training room with facilities for rehabilitation; a dance room; plus locker rooms, offices, and conference rooms.

The 4,300 square-foot James and Ada Bickman Fitness Center, an addition to the Kneller Athletic Center opened in the fall of 1995, provides students with a cardiovascular area and a strength and free-weight area.

Students play outdoor sports at Russ Granger Field. Recently renovated, the area consists of six PlexiPave-surfaced tennis courts and lighted fields for varsity field hockey, baseball, lacrosse, and soccer. The fields are also used for intramural and recreational sports. Included in the renovations was the construction of the 29,850 square-foot Dolan Field House, which provides indoor practice space, a training room, and locker rooms for visiting and home teams. O'Brien Field is the home to the varsity softball team, and the cross-country team practices in the many city and state parks near the University. Clark's rowing team practices and competes on Lake Quinsigamond, a short ride from campus. The Worcester-area colleges share a boathouse on the lake.

Division III Intercollegiate Athletics

Clark's 17 intercollegiate varsity teams compete as a member of the National Collegiate Athletic Association (NCAA, Division III) and the Eastern College Athletic Conference (ECAC). Locally, Clark competes in the New England Women's and Men's Athletic Conference that includes Babson College, Massachusetts Institute of Technology, Mount Holyoke College, Smith College, Springfield College, United States Coast Guard Academy, Wellesley College, Wheaton College, and WPI.

Men's varsity sports include baseball, basketball, crew, cross country, lacrosse, soccer, swimming and diving, and tennis. The women's varsity sports include basketball, crew, cross country, field hockey, soccer, softball, swimming and diving, tennis, and volleyball.



Graduate Program and Research Institutes



Founded in 1887 as the first all-graduate school in America, Clark has continued to offer outstanding master's and doctoral degree programs in the context of an intimate university. Over the years, Clark's graduate school has been at the center of major research breakthroughs in disciplines as diverse as physics, geography, and psychology.

Clark offers graduate programs leading to doctoral and master's degrees. Admission to Clark's graduate programs is open to holders of the bachelor's degree or its equivalent, and is determined on a competitive basis. All programs are administered by the Graduate Board. Completion of a master's degree program generally requires one or two years of study, and completion of the Ph.D. requires at least four years of study, although requirements vary across departments.

Doctor of philosophy degrees are offered in biology, the biomedical sciences, chemistry, economics, geography, history, physics, psychology, and women's studies. Master of arts degrees are offered in biology, chemistry, community development, education, English, geography, geographical information systems, history, international development and social change, physics, psychology, teaching and the interdisciplinary program for environmental science and policy. The master of business administration and master of science in finance are offered by the Graduate School of Management. The College of Professional and Continuing Education offers the master of public administration, a master of science in professional communication, master of science in information technologies, and the master of arts in liberal arts.

Departments that do not, at present, accept candidates for graduate degrees may offer courses suitable for inclusion in a program of graduate study. Programs crossing departmental lines are also available through the University's individually designed Ph.D. program.

There is a wide variety of financial support available for incoming graduate students. Most departments offer teaching assistantships, fellowships, and research assistantships. Often these come with a stipend as well as tuition grants. Some specific examples of fellowship awards are listed at the end of this section.

Because of the close interaction between the graduate and undergraduate colleges, Clark is able to offer accelerated, five-year master's degree programs. In a program unique to Clark, the fifth year is offered free to students who maintain a B+ average during their undergraduate four years at Clark.

Inquiries and Admission to Graduate School Programs

Inquiries from both U.S. and international students concerning specific programs of graduate and postdoctoral work should be addressed to the chair of the department or program concerned. Visit our Web site at www.clarku.edu for more information.

Admission to the Graduate School may be granted only by the dean of graduate studies and research acting for the Graduate Board on the recommendation of a department or program of the University. Formal notification is by official letter from the graduate dean. Applicants should communicate with the appropriate department or program head. The applicant will be provided with an application form, which, accompanied by a \$50 application fee, should be returned to the department or program. In addition, the applicant should arrange to forward an official transcript of all undergraduate and any subsequent academic work as well as three letters of recommendation from persons who are competent to judge qualifications for graduate study.

Department or program heads may request the submission of additional material, and

most require a record of attainment in the Graduate Record Examination given by the Educational Testing Service, Princeton, N.J. All applicants are urged to submit their scores on the Graduate Record Examination verbal, quantitative, and advanced tests. Applicants to the Graduate School of Management programs are required to take GMAT rather than GRE examinations.

In addition to an application and \$50 fee, foreign students should provide a certified English translation of official transcripts, evidence of English proficiency (TOEFL), at least three letters of recommendation, and a statement concerning their financial resources or agency support.

Application deadlines vary by department. Please contact the department or program of interest for the date.

Admission to the Graduate School is valid for a specified time only and lapses after that period. If a student is admitted while still a candidate for a degree from another institution, an updated transcript noting the conferring of that degree must be sent directly to the department or program of interest.

Part-time graduate study is possible in some departments. Admission as a special graduate student (nondegree candidate) is a simple enrollment process handled through the Office of Student Records. The grading system for these students is: A-F (with "+" and "-") or Pass/Fail.

Master's Programs

Master of Arts

Master of arts degrees are offered in the fields of biology, chemistry, community development, education, English, geography, history, international development and social change, physics, psychology, teaching, and the interdisciplinary program environmental science and policy.

Residency: An academic year (generally eight semester courses) of study in residence is a minimum requirement for a master's degree. Individual departments or programs may require longer periods of residency.

Foreign Language: Language or other special requirements are included in the department listings in this catalog.

Course and Examination Requirements: Each student must complete at least eight semester courses in a program approved by the department. One course may be a research course devoted to the preparation of the thesis. Credit for a maximum of two courses at another institution may be approved by the dean of graduate studies and research upon recommendation of the department.

Thesis: The thesis is written on a topic in the field of the student's special interest under the supervision of a member of the department and in a style, length, and format that is appropriate to the problem being researched. Regulations for submission of theses are available from the Graduate School Office.

Graduation Fee: The fee for the master of arts degree is \$100. This covers the cost of the diploma and binding of the library copy. It is payable when the thesis is deposited with the format adviser. Students who do not write a thesis, including those receiving the degree on the alternative program, must pay this fee no later than the date on which theses are due to the University format adviser.

Alternative Program: A candidate for the degree of master of arts may be recommended for the degree without a thesis after passing a preliminary doctoral examination.

Nonresident Students: Students who have completed all their in-class course work and are finishing their degree requirements off campus must continue to register each semester until graduation as nonresident students. The nonresident student status fee is \$200 each semester for the first three years and \$400 each subsequent semester.

Master of Arts in Education/Teaching

See program description in the Education section of this book for program requirements.

Postgraduate Programs in COPACE

Through the College of Professional and Continuing Education (COPACE), Clark offers Master of Arts in Liberal Arts (M.A.L.A.), Master of Public Administration (M.P.A.), and Master of Science in Professional Communication (M.S.P.C.) degrees and the Master of Science in Information Technology (M.S.I.T.).

The M.A.L.A. degree program is designed for students wishing to pursue liberal-arts education at the graduate level. The Master of Public Administration program is designed to strengthen and advance the managerial and analytical skills of midcareer managers and executives in public organizations and nonprofit institutions. The Master of Science in Professional Communication is a comprehensive, practical program designed for midcareer professionals. The MSIT is designed to prepare professionals to take a holistic approach; think critically about enterprise objectives; learn the strengths and weaknesses of each technology and how they interface; and envision the totality of e-based systems. For further information, contact the College of Professional and Continuing Education.

Certificate of Advanced Graduate Study (CAGS)

Through COPACE, Clark offers a Certificate of Advanced Graduate Study (CAGS) in Interdisciplinary Studies, designed for teachers, administrators, and other professionals. The program is open to those already holding a master's degree. Although increased specialization in a student's particular area is possible through the chosen concentration track, the Clark Interdisciplinary Studies CAGS, unlike traditional CAGS offered elsewhere, attempts to foster breadth beyond a discipline. Courses are chosen from several disciplines; the student's focus is interdisciplinary, incorporating and transcending established domains of study.

Master's Programs in the Graduate School of Management

Master of Business Administration/ Master of Science in Finance

The accredited Clark University Graduate School of Management offers programs leading to the master of business administration (M.B.A.) and the master of science in finance (M.S.F.).

Doctoral Programs

Doctor of Philosophy

Doctor of philosophy degrees are offered in biology, biomedical sciences, chemistry, economics, geography, history, physics, psychology, and women's studies. The University also offers an individually designed Ph.D. program for programs crossing departmental lines. Doctoral students in the biomedical sciences and in psychology may also enroll in courses given cooperatively with the University of Massachusetts Medical School, the Worcester Foundation for Biomedical Research, and Worcester Polytechnic Institute. Only well-qualified candidates with proven ability in their special fields of study will be encouraged to proceed to the degree of doctor of philosophy.

Residence: The minimum requirement is one year of full-time study (eight semester courses) beyond the M.A. or its equivalent in part-time work, in residence. If the degree of Master of Arts has been earned at Clark, this requirement is in addition to the residence requirement for that degree.

Foreign Language: Each graduate department sets its own language or related requirements as the student's field of research may demand and must report such requirements in each case to the dean of graduate studies and research. If a language is required, either a testing service or on-campus tests are employed at the discretion of the department.

Preliminary Examination: Upon completion of preparation in the fields of study, a prospective candidate takes a preliminary examination set by the major department. This examination may be written or oral, or a combination of

both. The chair of the department may invite other scholars from within or outside the University to participate in the examination.

Dissertation: A dissertation, which is expected to make an original contribution to a specialized field of knowledge, is required of each candidate. The dissertation, approved by the chief instructor or dissertation committee, is presented to the examining committee at the final oral examination. An abstract of the dissertation, not exceeding 350 words, and a precis, not exceeding 75 words, both approved by the dissertation advisers, are also required. Four weeks before the degree is to be conferred, a presentation-quality copy of the dissertation, together with two official title pages, an academic history, an abstract and a precis, must be delivered to the University format adviser. At the same time, one or more copies of the dissertation and of the abstract may be required by the major department. The title pages, precis, and academic history forms can be obtained from the format adviser. The presentation-quality copy of the dissertation must be typed or computer-printed as prescribed in Format Regulations for Theses, Dissertations, and Research Papers and Suggestions for the Preparation of Doctoral Dissertations for Microfilming. These instructions are available from the format adviser.

The dissertation and abstract become part of the permanent collection in the University library. A microfilm copy of each dissertation is made by Bell & Howell of Ann Arbor, Michigan, and is available for duplication on request to that company. The abstract is printed in Dissertation Abstracts.

Articles published in referred journals may be accepted in lieu of a dissertation with the approval of the department and the graduate dean.

Graduation/Diploma Fee: The fee for the doctor of philosophy degree is \$150. It covers the cost of the diploma, hood, publication of the abstract in Dissertation Abstracts, and binding of the library copy of the dissertation. It is payable when the dissertation is deposited with the University format adviser.

Nonresident Students: Continuing students who are not registered for courses at Clark are required to register for and pay a nonresident fee of \$200 per semester to maintain active status. If fees are unpaid, the student will be dropped from the degree program. (Fees double after three years.) For information on nonresident loan deferment status see "Graduate Tuition" section.

Doctor of Philosophy in Biomedical Sciences

The biomedical sciences Ph.D. program began in 1975 with the recognition that certain individuals without a standard academic background, but with previous research experience and an outstanding aptitude for independent research, may benefit from a relatively unstructured program leading to the Ph.D. degree.

This is a cooperative program involving Clark University, the University of Massachusetts Medical School, Worcester Foundation for Biomedical Research, and Worcester Polytechnic Institute. It utilizes the faculty, facilities, and varied research interests in the biomedically related sciences in the Worcester area. The primary criteria for admission are research ability and potential, and evaluation of applicants is based largely on evidence of their previously performed research. Award of the Ph.D. requires passing of a preliminary examination and presentation and defense of a research thesis. Competence in the major field in preparation for the preliminary examination can be achieved through independent study, directed study, or formal courses. The Ph.D. degree may be awarded by either Clark University or Worcester Polytechnic Institute, although dissertation research may be done at any of the participating institutions under the sponsorship of a faculty member from that institution. Areas for dissertation research reflect the varied research programs of faculty from the participating institutions. These include, but are not limited to: cellular and molecular biology; cell senescence; metabolism, endocrinology, and immunology; pharma-

cology and experimental pathology; reproductive biology, physiology, neurobiology, and behavioral science; biological engineering, related to nitrogen fixation and development of new symbiotic systems with blue-green algae, biomass and bioenergy (silviculture and fermentation technologies).

Admission: The primary criterion used in selection of students for this program is the demonstrated capacity of the applicant to do independent research. In addition to the application form, applicants submit official transcripts of undergraduate and graduate work, Graduate Record Examination (GRE) scores, three letters of reference, and evidence of outstanding research ability (e.g., publications, abstracts, etc.). More complete information may be obtained from the program director.

Applications and all supporting documents should be submitted to Dr. Joseph Bagshaw, Department of Biology and Biotechnology, Worcester Polytechnic Institute, 100 Institute Road, Worcester, MA 01609.

Graduate Grading Policies

The grades of A and B (with "+" and "-") are acceptable for graduate credit; anything lower than a B- is not acceptable. A Pass/Fail grading option is possible, where P (pass) signifies that the student has performed at a B- or above. Incompletes are awarded at the discretion of the instructor for a period not exceeding one year.

Graduate Student Services

Graduate Housing

A limited number of on-campus housing spaces are available through the Office of Housing and Residential Programs. Incoming students have priority for this housing. Further details may be obtained from the Office of Housing and Residential Programs, or from academic departments.

Off-campus rooms and apartments for both men and women are available in the immediate area of the University. A limited listing of current housing opportunities is compiled by the Office of Housing and Residential

Programs. Students without prior arrangement for University-owned housing are urged to arrive before registration to seek suitable housing in the area.

For information on meal plans, health insurance, and health services, please refer to the section on Facilities and Student Resources.

**Graduate Tuition and other Charges
Academic 2003-2004**

Full-time Graduate Students:

Tuition: \$26,700 per academic year (or \$13,350 per semester)

In departments that define a full load as four courses per semester, the per-course charge is \$3,337.50. The per-course charge varies in some departments according to their specific definition of a full program. Students should contact their department chairs to find out which scale applies.

Part-time Graduate Students:

Tuition is charged on a per-course basis according to the scale used in the student's department (generally \$3,337.50 per course).

Special Graduate Students (nondegree candidates):

Tuition: \$3,337.50 per course

Tuition and fees differ in the following programs:

- Master of Business Administration
- Master of Science in Finance
(Contact the Graduate School of Management for further details.)
- Master of Arts in Liberal Arts
- Master of Public Administration
- Master of Science in Professional Communication
- Master of Science in Information Technology
(Contact the College of Professional and Continuing Education for further details.)
- Master of Arts in Teaching
- Master of Arts in Urban Education and Teacher Research

Other Fees

Graduation Fee—payable at the time the thesis or dissertation is deposited with the Office of the Graduate School.

Master's degrees \$100

Doctoral degrees \$150

Students who do not write a thesis or dissertation, including those receiving the degree through an alternative program, must pay this fee no later than the date on which theses are due to the University format adviser (generally, April 1).

Nonresident Fee: \$400

Payable Aug. 1 and Dec. 1: \$200 per semester. All degree candidates who are not formally enrolled in course work must pay the nonresident fee each semester until the final copy of the thesis or dissertation is approved by the University format adviser. If these fees are not paid by the close of the fiscal year, the student will be dropped from the program. (Fees double after three years.)

Loan Deferment

Only students enrolled on at least a half-time basis are eligible for student deferment status on college loans. Nonresident graduate students on a half-time basis are limited to two years of student deferment status.

Graduate Scholarships, Fellowships, and Assistantships

Graduate fellowships and scholarships are provided for well-qualified students by the University from endowed funds and from other sources. Financial aid to graduate students also is available in the form of grants from a number of special funds and, in some departments, from sponsored research grants. A limited amount of part-time employment is available in the various offices and departments of the University. Students who receive awards must obtain permission from the department before accepting employment. Application for a

scholarship or fellowship to begin in September should be made before Feb. 15 to the chair of the department or director of the program in which the applicant expects to do major work. Late applications, after endorsement by the department, go to the dean of graduate studies and research for final approval.

Research Fellowships

These fellowships may be awarded to graduate students who have fulfilled their residence requirements and who are pursuing a full-time doctoral program on campus.

Teaching Assistantships

Teaching assistants are assigned a variety of duties according to the needs of the department. Responsibilities include conducting discussion sessions, supervising laboratory sections, holding tutorial sessions, and grading papers and projects. Assistantships typically involve a commitment of approximately half time (an average of 17-1/2 hours a week). A tuition-remission scholarship or fellowship accompanies this award, and a usual nine-month stipend is \$9,000 to \$13,500, depending on program or department. Additional support up to a 12-month stipend is available in some departments.

Assistantships

Assistantships are available in several departments. Assistantships involve a variety of services, including research with appropriate stipends, and usually provide the student with experience that will be useful in later professional work.

Graduate Fellowship, Scholarship, and Department Funds

Stipends for fellowships and scholarships are provided by endowed funds. For further information about these funds, contact the Graduate School Office.

Research Centers and Institutes

The George Perkins Marsh Institute was founded in 1991 to conduct collaborative, interdisciplinary research on human-environment relationships, especially the human dimensions of global environmental change. While not a teaching facility, the institute is dedicated to training a new generation of researchers and practitioners in interdisciplinary approaches to environmental assessment and management through their involvement in a variety of research projects. The institute is directed by Sam Ratick (geography, IDCE) and includes more than 60 researchers and students from the social sciences, natural sciences, and humanities. It houses the Jeanne X. Kasperson Research Library and four research centers: the Center for Technology, Environment and Development; the Clark Labs for Cartographic Technologies and Geographic Analysis; the Center for Community Based Development; and the Greening of Industry Network.

The Kasperson Library is a unique resource of the institute and offers one of the most extensive collections in North America of research materials on natural and technological hazards and environmental change. The library holds more than 25,000 volumes (including technical reports, government reports, scholarly books, court cases, and regulatory proceedings), more than 750 journals and newsletters, and various special collections on international development, water resources and energy. The entire catalogued collection is machine retrievable.

Founded in 1978, *The Center for Technology, Environment and Development (CENTED)* is internationally recognized as one of the oldest and most prominent centers for the study of natural and technological hazards in the United States. Interdisciplinary research has always been CENTED's forte, with current projects ranging from theoretical work on the human dimensions of global environmental

change, hazard analysis, hazard taxonomies, vulnerability, environmental equity, comparative risk analysis and risk participation, corporate risk management, hazardous-waste transportation, and emergency planning. Other research emphases are the central role of urbanization; and the related processes of economic and industrial change in defining the impacts of human systems on the global environment, and the interaction of land and water resource use systems with social and ecological change.

The Clark Labs for Cartographic Technologies and Geographic Analysis (Clark Labs) is an international leader in the development of computer software and analytical techniques for monitoring and modeling environmental change. Clark Labs continues to develop and distribute IDRISI, a Geographical Information System (GIS) software package that is in use at more than 35,000 sites in over 150 countries worldwide.

The Center for Community Based Development (CCBD) is the research and training arm of the University's program for international development. Building on 30 years of development experience in Africa, Asia and Latin America, CCBD works in partnership with organizations and institutions worldwide to strengthen grassroots planning and action to build sustainable development. The center is unique in its ability to link community institutions, development planners, external agencies and policy makers. Its faculty has developed extensive, collaborative, working relationships with African institutions focusing on themes of resources management and institution building. CCBD has recently expanded work to Asia and Latin America and broadened its themes to include deep involvement in gender issues, local participation, community institutions, and rural development.

The Greening of Industry Network is an international partnership, a research and policy institute without walls, focusing on issues of industry, environmental and society, and dedication to building a sustainable future. The network mobilizes a community of researchers to stimulate the emergence of a new strategic research area on the greening of industry. It creates a dialogue between this emerging research community and users of this research in business, labor, government, NGO's, public interest groups, and others while providing an opportunity for all stakeholders with equal voice to develop research and policy agendas on issues of industry, sustainability and society.

The Jacob Hiatt Center for Urban Education was created in 1991 through a substantial endowment as a permanent partnership between Clark University and the Worcester Public Schools. The center brings together Clark faculty and public-school teachers and administrators to find innovative ways to address the challenges and possibilities of contemporary urban schools, especially in light of the diverse cultural backgrounds of the students they serve. The center fosters the work of an interdisciplinary group of scholars and teachers, focusing on issues of curriculum, language, and learning. It supports teachers as researchers and educational leaders and has developed an innovative teacher education program and a close relationship with six demonstration schools in the city including University Park Campus School, a model small school. The center seeks to set a new vision and standard for urban education nationwide. Dr. Thomas A. Del Prete directs the center.

The Heinz Werner Institute for Developmental Analysis is devoted to the application of developmental analysis to all psychological and psychocultural phenomena. The institute is named for Heinz Werner (1890-1965), one of the leading psychologists of the past half century, and the first chairman of the Board of Directors of the Institute of Human Development, founded at Clark in 1957. The institute encourages interdisciplinary conferences and research cooperation among all groups whose primary interest is in the promotion of human development. It brings together developmentally oriented sociologists, anthropologists, philosophers, geographers, historians, culturologists, and literary theorists relevant to an understanding of different states and levels of mentality. Dr. Seymour Wapner is chair of the institute's executive committee.

The Institute for Economic Studies began its operation in January 1980. The institute is an integral part of the Economics Department, and its main objectives are to research significant economic issues, propose policy options to deal with them, and disseminate the results of the research and its policy recommendations—to a broad audience. A scholar-in-residence program was instituted in 1984 to stimulate the exchange of ideas and dialogue between guest scholars and members of the institute and economics faculty. The institute director is Attiat F. Ott.



Majors, Minors and Special Programs



ANCIENT CIVILIZATION

Program Faculty

Paul F. Burke Jr., Ph.D., *program coordinator: Greek and Latin language and literature, classical mythology, classical art and archaeology, ancient history*

Everett Fox, Ph.D.: *Jewish ritual and folklore, classical Jewish thought*

Michael Pakaluk, Ph.D.: *history of ancient philosophy, Plato, Aristotle*

Ivy Sun, M.A.: *Latin*

Rhys F. Townsend, Ph.D.: *ancient Greek art and architecture, underwater archaeology, classical tradition in Western art, early Christian and Byzantine art*

Program In Ancient Civilization

The program in ancient civilization consists principally of courses in art history, classics, Jewish studies, and philosophy. This interdisciplinary program covers the entire spectrum of ancient Mediterranean culture including Greek, Hebrew, and Latin languages. By combining art history, Jewish studies, and philosophy with what has been traditionally identified as classics (Greek and Latin language and literature), the Clark program in ancient civilization presents established disciplines in a stimulating and original configuration.

The Major In Ancient Civilization

The purpose of the major is to supply students with a sound knowledge of the ancient Greco-Roman and Judaeo-Christian roots of Western civilization. Majors are expected to acquire a working knowledge of at least one of the principal languages of the ancient Mediterranean (Classical Greek, Hebrew, or Latin); this ensures direct access to the culture, literature, philosophy, and history of the ancient world.

Majors are also eligible to apply for admission to the Intercollegiate Center for Classical Studies in Rome, where they can spend a semester studying classical literature and archaeology.

Requirements

To graduate as an ancient civilization major, a student must complete with a C– grade or better at least 10 courses in ancient civilization. These courses must include:

1. At least two courses, from different departments, from among this group of foundation courses:
Art 110, Ancient Greek Art
Classics 111, Roman Art and Architecture
Classics 121, Introduction to Greek Culture
History 174, The Jewish Experience
Philosophy 141, History of Ancient Greek Philosophy
2. At least one semester course at or above the intermediate level (language 103) in Greek, Hebrew, or Latin.
3. A one-semester senior seminar, to be taken preferably during the second semester of the senior year, including a major research paper, arranged in consultation with at least two members of the program faculty by the end of the junior year.

Minor in Ancient Civilization

An interdepartmental minor in ancient civilization consists of a total of six courses listed below, or other courses approved for the minor by program faculty. These courses must include:

1. At least two courses, from different departments, from the group of foundation courses listed above.
2. At least two 200-level courses.

Students minoring in ancient civilization are strongly encouraged (but are not required) to study Latin, Greek, or Hebrew for their remaining two courses.

Courses

A. Art History

105 THE AEGEAN WORLD

See Art History 105. Mr. Townsend/Offered every other year

106 INTRODUCTION TO ARCHAEOLOGY

See Art History 106. Mr. Townsend/Offered every other year

109 CLASSICAL MYTH AND THE GREEK IDEAL IN ART

See Art History 109. Mr. Townsend/Offered every other year

110 ANCIENT GREEK ART

See Art History 110. Mr. Townsend/Offered every other year

114 ANCIENT CITIES AND SANCTUARIES

See Art History 114. Mr. Townsend/Offered every other year

215 THE TEMPLE BUILDERS: ARCHITECTURE IN ANCIENT GREECE

See Art History 215. Mr. Townsend/Offered periodically

219 SPECIAL TOPICS: ANCIENT ART

See Art History 219. Mr. Townsend/Offered periodically

B. Classics

GREEK

101/102 INTRODUCTORY GREEK

See Foreign Languages and Literatures/Classics. Mr. Burke/Offered every other year

299 SUPERVISED READING IN PHILOSOPHICAL GREEK

A study of selected philosophical texts in Greek. Mr. Pakaluk/Offered every semester

LATIN

101/102 INTRODUCTORY LATIN

See Foreign Languages and Literatures/Classics. Ms. Sun/Offered every year

299 SUPERVISED READING IN PHILOSOPHICAL LATIN

A close reading of selected philosophical texts in Latin. Mr. Pakaluk/Offered every semester

299.1 DIRECTED READING IN LATIN LITERATURE

A reading of selected literary Texts. Ms. Sun/
Offered every semester

CLASSICS COURSES TAUGHT IN ENGLISH

111 ROMAN ART AND ARCHITECTURE/LECTURE, DISCUSSION

Surveys artistic and architectural accomplishments of ancient Rome and the Roman Empire, beginning with the origins of Rome in Bronze Age central Italy. Studies Roman relations with Etruscans, Greeks, and other non-Latin-speaking peoples as manifested in Roman art and architecture. Examines effects of Judaeo-Christian values on the formerly pagan Empire, appearance of a Christian Roman government, and development of distinctively Christian forms of Roman art and architecture. Mr. Burke/Offered periodically

120 THE EPIC JOURNEY/FIRST-YEAR SEMINAR

Surveys examples of ancient epic literature, beginning with the Sumerian Epic of Gilgamesh and the Book of Exodus. Other texts studied include Homer's *Iliad and Odyssey* and Vergil's *Aeneid*, all in English translation. The unifying idea of the course will be the concept of the hero and of heroic action in the various cultures of the ancient world. Mr. Burke/Offered every other year

124 INTRODUCTION TO CLASSICAL MYTHOLOGY/LECTURE, DISCUSSION

Studies English translations of ancient Near Eastern, Greek, and Roman literary text (along with some modern ones) to understand the function of myth in Greco-Roman antiquity as a vehicle for artistic communication and social commentary. Emphasizes influence of ancient mythology on later European culture, especially literature and art. Includes slide illustrations. Mr. Burke/Offered every other year

150 JERUSALEM IN HISTORY AND IMAGINATION/LECTURE, DISCUSSION

Surveys fortunes and forms of Jerusalem from Bronze Age to present day. Examines the political and religious visions for the city (pagan, Jewish, Christian, Muslim) and the secular and religious aspirations of these groups as they have become inextricably entangled with the history of the city. Mr. Burke and Mr. Fox/
Offered periodically

157 THE AGE OF NERO/LECTURE, DISCUSSION

Studies the first century of Roman Imperial society, particularly the reign of the emperor Nero (A.D. 54-68). Emphasizes historical, social, and cultural results of consolidation to totalitarian rule in Rome, a form of government that dominated the Mediterranean world and most of Europe for four centuries. Mr. Burke/Offered every other year

262 JEWS AND CHRISTIANS IN THE ANCIENT WORLD

A historical and cultural survey of the complex and tumultuous period between foundations of the Roman Empire and the sixth century A.D., when medieval culture was established in Europe. Studies the struggle between pagan or classical modes of thought and Judaeo-Christian beliefs and values, and the assimilation of each in the other; and the tension within the Christian movement between spiritual and practical concerns as the new religion came to dominate Western culture. Mr. Burke/
Offered every other year

267 RELIGIOUS EXPERIENCE IN THE ANCIENT WORLD/LECTURE, DISCUSSION

Studies religious experience available to people of the ancient Mediterranean from approximately the time of Homer to the official acceptance of Christianity by Roman Imperial government. Includes: nature of polytheist gods, prophecy and oracles, conversion and spread of religious belief, Jewish and Christian monotheism, evil in ancient religious thought, and the rise of Christianity. Mr. Burke/Offered every other year

ART HISTORY AND STUDIO ART

(See Visual and Performing Arts).

BIOCHEMISTRY AND MOLECULAR BIOLOGY

Program Faculty

David L. Thurlow, Ph.D., *program director:*
RNA-protein interactions

Rafael P. Bruschweiler, Ph.D.: *biomolecular*
NMR

Frederick Greenaway, Ph.D.: *bioinorganic*
chemistry, magnetic resonance

David S. Hibbett, Ph.D.: *molecular*
systematics, mycology

Shuanghong Huo, Ph.D.: *protein simulations*

Denis A. Larochelle, Ph.D.: *cell biology,*
cytokinesis

Donald J. Nelson, Ph.D.: *protein chemistry,*
pharmacology

Timothy A. Lyerla, Ph.D.: *somatic cell genetics*

Thomas J. Leonard, Ph.D.: *molecular biology,*
microbial genetics

Deborah L. Robertson, Ph.D.: *marine biology,*
algal physiology

Justin R. Thackeray, Ph.D.: *molecular*
biology, genetics

Emeritus Faculty

John J. Brink, Ph.D.: *metabolic regulation,*
pharmacology, neurochemistry

Undergraduate Program

The biochemistry and molecular biology program offers an interdisciplinary major that draws on the faculty and course resources of the departments of biology and chemistry. Designed to provide students with an in-depth exploration of an area of science that is perhaps the most exciting and actively growing of any today, the program is suitable for students who want to pursue graduate studies in the area; enter medical school with a strong background in basic science; or take laboratory or

other science-related positions after graduation. Those wishing to major in biochemistry and molecular biology must select an adviser within the program and file a plan of study with the program director.

Major Requirements

Students first obtain a solid grounding in biology, chemistry, physics, and calculus and then take biochemistry, a yearlong course sequence that covers our current understanding of the field. After that, there is a choice between two tracks, or alternative ways to complete the major, depending on the individual's interests.

The core curriculum consists of the following required courses:

Introduction to Calculus (MATH 120 and 121 or 124 and 125)

Introduction to Physics (PHYS 110 and 111 or 120 and 121)

Introductory Chemistry (CHEM 101 and 102)

Introduction to Biology (BIOL 101 and 102)

Genetics (BIOL 118)

Cell Biology (BIOL 137) or Microbiology (BIOL 109)

Organic Chemistry (CHEM 131 and 132)

Biophysical Chemistry (BCMB 264)

Biochemistry I and II (BCMB 271 and 272)

The student will also complete one of the following two groups of courses, emphasizing either biochemistry or molecular biology:

Courses required for the biochemistry track:

Bioanalytical Chemistry (BCMB 144)

Protein Chemistry (BCMB 275) or

Biomolecular NMR (CHEM 266) or

Natural Products (CHEM 236)

Courses required for the molecular biology track:

Molecular Genetics (BCMB 228)

Recombinant DNA (BCMB 231)

Students must also complete two additional courses related to biochemistry and molecular biology, which do not satisfy requirements for

other majors. This requirement may be satisfied with any of the program offerings, a direct-ed research course, any biology or chemistry course in the list above (and not already used to fulfill a requirement), or other biology or chemistry courses approved by the adviser.

Honors Program

A student interested in the honors program should contact the program faculty member with whom the student would like to do research, and then apply in writing to the program director for admission. A "B" average is required. In addition to the course requirements listed above, honors candidates must:

- (a) carry out a research project under the supervision of a faculty member in the biochemistry and molecular biology program;
- (b) submit an honors thesis or publication based on the research project;
- (c) present the research results in a public seminar; and
- (d) pass a comprehensive oral examination. Students are encouraged to begin their research in the summer following the junior year, if not earlier.

Minor in Biochemistry and Molecular Biology

The requirements for a minor in biochemistry and molecular biology are Biochemistry I and II (271 and 272). Two additional related courses, neither of which may be used to satisfy requirements for other majors, minors, or concentrations.

Courses

144 BIOANALYTICAL CHEMISTRY/LECTURE, LABORATORY

Presents both theoretical and practical aspects of quantitative analysis as they apply to biological macromolecules—proteins and nucleic acids. Topics include statistical procedures for evaluating analytical data; equilibrium theory; titrimetric, spectroscopic and electrochemical

methods of analysis; chromatographic and electrophoretic methods; and kinetic methods of analysis. The laboratory component of the course will emphasize accurate and precise data collection and various computational approaches to data analysis. A significant portion of the laboratory phase of the course will be devoted to carrying out a group research project, such as the isolation and partial characterization of a new protein from a novel biological source. Prerequisite: Chemistry 271. Mr. Nelson/ Offered every other year

228 MOLECULAR GENETICS/LECTURE, SEMINAR

Explores recent discoveries in the molecular genetics of prokaryotes and eukaryotes, with emphasis on new findings related to catalytic activities of RNA. Topics include: protein synthesis, RNA transcription, gene regulation, RNA splicing, catalytic RNA, and origins of living systems. Intended primarily for seniors and graduate students. Prerequisite: Biochemistry and Molecular Biology 272 or Biology 118 or permission of instructor. Mr. Thurlow/ Offered every year

231 RECOMBINANT DNA/LECTURE, LABORATORY

A laboratory-oriented course designed to introduce recombinant DNA methodology. Students undertake a semester-long project, which will vary each time the course is offered. A typical project might involve construction of a genomic library, isolation of specific clones from the library, and characterization of these clones. Methods usually include DNA purification, Southern blot hybridization, restriction enzyme mapping, bacterial transformation, polymerase chain reaction (PCR) and DNA sequencing. Prerequisite: Biology 118 or permission of instructor. Mr. Thackeray/Offered every year.

252 BIOINORGANIC CHEMISTRY/LECTURE

Discusses the chemistry of metals in biological systems and models of these systems. There is a lengthy introduction to general principles and theories of inorganic chemistry and of metal ion and drug transport in biological systems.

This is followed by an introduction to physical techniques used in studying metalloproteins. The major part of the course is a discussion of the application of these principles and methods by way of a survey of metallobiological systems. Prerequisite: Permission of instructor. Mr. Greenaway/ Offered periodically

264 BIOPHYSICAL CHEMISTRY/LECTURE, LABORATORY

Emphasizes the physical chemistry of biological macromolecules—proteins and nucleic acids. Covers the basic laws of thermodynamics, molecular thermodynamics (including aspects of modeling macromolecular structure, molecular mechanics and molecular dynamics simulations), statistical thermodynamics, x-ray and NMR structure determination, light scattering by macromolecules, quantum mechanics and spectroscopy, and solution behavior of macromolecules. The laboratory sessions are split between “wet” macromolecular chemistry and computational projects. Prerequisite: CHEM/BCMB 271 or permission of instructor. Mr. Nelson/Offered every other year

271 BIOCHEMISTRY I/LECTURE, LABORATORY

272 BIOCHEMISTRY II/LECTURE

This two-semester course provides a comprehensive and up-to-date survey of the field of biochemistry. Topics include protein structure and function, information flow, metabolic pathways, and other topics. A laboratory component for the first semester acquaints students with methods and instrumentation used in biochemical research. Prerequisites: Biology 101, 102, and Chemistry 132. Mr. Nelson, Mr. Thackeray, Mr. Thurlow/ Offered every year

273 PRINCIPLES OF MOLECULAR MODELING

See Chemistry 273. Ms. Huo/Offered every other year

275 PROTEIN CHEMISTRY/LECTURE

Presents an in-depth view of protein structures and molecular properties, and discussions of how structure and properties are inextricably linked to biological function. Topics discussed include: chemical properties of polypeptides, biosynthesis of proteins, posttranslational modifications, evolutionary and genetic origins of protein sequences, physical interactions that determine the properties of proteins, the folded conformations of proteins, proteins in solution and in membranes, interaction of proteins with other molecules, enzyme catalysis and protein degradation. This course has a computational component which will provide students with hands-on learning experience using sophisticated molecular modeling/molecular mechanics software packages on a selected protein system. These projects will utilize in-house software packages as well as other programs accessed over the Internet. Prerequisite: BCMB/CHEM 271, or permission of instructor. Mr. Nelson/Offered every other year

297 HONORS

Departmental honors in biochemistry and molecular biology requires laboratory research, a thesis and a seminar.

298 INTERNSHIP

Internships are arranged through the Internship Office within the Office of Career Planning and Services. Students may register under BCMB 298 provided that the Clark internship supervisor is a member of the Biochemistry and molecular biology program. Staff/Offered every semester

299 DIRECTED STUDY

Individual investigations involving laboratory research under the direction of a professor or advanced readings in the scientific literature. Offered for variable credit. Prerequisite: permission of instructor. Staff/Offered every semester

BIOLOGY

Program Faculty

Thomas J. Leonard, Ph.D., chair:

developmental genetics, secondary metabolism, fungal genetics and molecular biology

Susan A. Foster, Ph.D.: *evolution, behavior and ecology*

David S. Hibbett, Ph.D.: *molecular systematics, mycology*

Linda M. Kennedy, Ph.D.: *physiology, neuroscience, sensory function, taste*

Denis A. Larochelle, Ph.D.: *cell biology, molecular biology*

Todd P. Livdahl, Ph.D.: *population biology, community ecology, evolution, biostatistics*

Timothy A. Lyerla, Ph.D.: *genetics, genetic disorders, vertebrate anatomy*

Deborah L. Robertson, Ph.D.: *marine biology, algal physiology*

Justin R. Thackeray, Ph.D.: *molecular biology, genetics, signal transduction*

Nicholas S. Thompson, Ph.D.: *animal behavior, evolutionary theory*

Adjunct Faculty

Halina S. Brown, Ph.D.: *health and risk assessment, environmental chemistry, regulatory toxicology*

Frederick T. Greenaway, Ph.D.: *bioinorganic chemistry, enzymology*

Stanley R. Herwitz, Ph.D.: *hydrology, soil/water plant relationships, biogeography, field methods and instrumentation*

Donald J. Nelson, Ph.D.: *biochemistry, bioinorganic chemistry*

David L. Thurlow, Ph.D.: *molecular biology*

Affiliate faculty

Clayton B. Cook, Ph.D.

Craig Ferris, Ph.D.

Philip Robakiewicz, Ph.D.

Emeritus Faculty

Vernon Ahmadjian, Ph.D.

John J. Brink, Ph.D.

Joseph C. Curtis, Ph.D.

H. William Johansen, Ph.D.

John T. Reynolds, Ph.D.

Undergraduate Program

The department offers courses that prepare students for work and advanced study in the biological and biomedical sciences; provides support for other programs within the University that require students to obtain a background in one or more subfields of biology; and meets the needs of nonscience majors who wish to integrate the perspectives of the science of biology into a liberal-arts curriculum. The major in biology is especially suitable for students who intend to go on to professional schools in the health sciences or graduate work in a variety of subfields of the biological sciences.

The department provides a set of requirements for students wishing to optimize their breadth of exposure to the field as a whole. The department encourages students to identify an area to emphasize within biology, and to plan a sequence of courses that will provide depth of exposure to the topics within that area, including a research experience, if possible.

The department offers two general curricula: one in cell and molecular biology and one in ecology and evolution. Prospective majors are urged to consult with an adviser selected from the department's faculty, especially to take advantage of opportunities to participate in ongoing research in the honors program, specialized research courses and internships.

Please note that the two-semester course, Introduction to biology (BIOL 101 and 102) is a prerequisite for all other courses in biology that will be used to meet the requirements for the major.

Requirements for All Biology Majors

- 10 courses in biology, including BIOL 101 and 102 (see below)
- Two courses in chemistry (CHEM 101 and 102)
- Courses in mathematics to include a year of calculus (MATH 120 and 121, or MATH 124 and 125), or one semester of calculus combined with Quantitative Methods in Biology (BIOL 106); if Quantitative Methods in Biology is used to meet this requirement, it

will not count toward the total of 10 required biology courses.

- Two additional courses in chemistry, geology, computer science, mathematics (at 120 level or higher) or physics. Aside from Introduction to Physics and Introduction to Geology, none of these may be designated as science perspective courses.
- Science and mathematics courses offered to meet the major requirements may not be taken with a pass option.

At least two of the 10 required biology courses must be at the 200 level or above, and no courses carrying the science perspective designation except BIOL 101 and 102, Chemistry 101 and 102, and Physics 110 and 111 may be used to satisfy major requirements.

Additional Requirements for the Generalized Biology Major

One course must be completed in each of the following three areas:

1. Molecular and Cell Biology, including Genetics (BIOL 118), Cell Biology (BIOL 137)
2. Organismal Diversity, including Microbiology (BIOL 109), Botanical Diversity (BIOL 110), Comparative Vertebrate Anatomy (BIOL 112), Biology of the Brain (BIOL 140), Introduction to Fungal Biology (BIOL 180)
3. Ecology and Evolution, including Evolution (BIOL 105), Marine Biology (BIOL 114), Ecology (BIOL 216), Population Biology (BIOL 220)

Additional Requirements for the Curriculum in Ecology & Evolution

The eight biology courses beyond BIOL 101, 102 shall be structured as follow:

- BIOL 105 (Evolution)
- Two courses that are primarily informational in content, aimed at describing a wide variety of aspects of the natural environment or

evolution, including BIOL 110 Introduction to Plant Diversity, BIOL 112 Comparative Vertebrate Anatomy, BIOL 114 Marine Biology, BIOL 180 Introduction to Fungal Biology, BIOL 242 Animal Behavior

- Two courses with an analytical or theoretical orientation, including BIOL 118 Genetics, BIOL 135 Paradox of Animal Sociality, BIOL 216 Ecology, BIOL 220 Population Biology, BIOL 254 Molecular Evolution
- One course that develops research techniques: BIOL 109 Microbiology, BIOL 201 Ecology of Atlantic Shores, BIOL 280 Biostatistics and Computer Applications, BIOL 213 Forest Hydrology and Field Methods
- One seminar course: BIOL 222 Community Ecology, BIOL 204 Watershed Ecology, BIOL 223 Topics in Marine Biology, BIOL 243 Seminar in Evolution
- Capstone project: at present, this can be fulfilled through a directed research project with one of the faculty members on the curriculum committee or an internship in an area relevant to ecology and evolution, as approved by the committee.

Special Field Courses

Biology majors are encouraged to take field courses and to become engaged in field research projects. Clark University maintains formal affiliations with the following organizations, enabling students to apply for admission and, in some cases, preferential financial-aid consideration. Courses from these organizations can be taken in place of other courses required for either the generalized biology major or the curriculum in Ecology and Evolution.

The Bermuda Biological Station is an internationally renowned center for marine biological and oceanographic research. Intensive summer field courses are available for qualified Clark students. Any of these courses can be taken for biology major credit.

The Semester in Environmental Sciences is offered in the fall by the Ecosystems Center, at the Marine Biological Laboratories, Woods Hole, Mass. Students enrolled in SES receive four units of credit for participation in this research-intensive academic program

The School for Field Studies operates six centers at which semester-long field-oriented courses may be taken for four credit units:

- The Center for Rainforest Studies (Australia)
- The Center for Marine Resource Studies (Turks and Caicos Islands, Caribbean)
- The Center for Wildlife Management Studies (Kenya)
- The Center for Coastal Studies (Baja, Mexico)
- The Center for Sustainable Development Studies (Costa Rica)
- The Center for Rainforest and Fisheries Studies (British Columbia, Canada)

Clark students are also eligible for admission into summer courses at these centers. Students interested in taking any of these courses for credit toward the major must first take at least one course in either the organismal or population areas (biology course categories 2 or 3 described for the Generalized Biology Major).

The specific course offerings at the Bermuda Biological Station and the School for Field Studies may change each year. Recent, detailed information on the School for Field Studies and the Bermuda Biological Station is available at Web sites maintained by those organizations (www.fieldstudies.org and www.bbstr.edu). Students who wish to apply for these or other off-campus course programs are urged to consult with their biology adviser to ensure that the program will satisfy the student's needs for a well-planned biology major.

Honors Program

Well-qualified upper-division majors are eligible for admission to a program that can lead to a bachelor of arts degree with honors. A candidate for honors must meet all requirements of the major, maintain a high grade-point average, complete an independent research project under the direction of a departmental faculty member, prepare an acceptable thesis, and pass a final comprehensive examination. The criteria for admission into the honors program are outlined in material available from the department.

Minor in Biology

The requirements for a minor in Biology are:

1. BIOL 101 and 102 Introductory Biology
2. Four additional courses spanning at least two of the three subject categories set out in the Generalized Biology Major. A selection of appropriate courses in each designation is listed in the description of the major, but students are not restricted to selecting from this list. At least one of the four must be at the 200 level and none can carry the science perspective designator. All students wishing to complete a minor must select courses, receive approval from their biology faculty adviser, and declare the minor by the end of the junior year, although earlier is recommended.

B.A./M.A. Degree Program

This plan, which enables students to complete the requirements for the bachelor of arts and the master of arts degrees within five years, is intended for students who develop sharply focused research interests. Undergraduates who will have completed the chemistry and mathematics requirements for the biology major by the end of their third year may apply for admission to this program during the second semester of their third year.

Students accepted into the program will be advised individually by a committee of faculty members who will set forth the specific course requirements and research expectations for the

master's portion of the program. Courses taken at the 200 level or higher may be counted toward the course requirements for both the bachelor's degree, which will normally be awarded after the fourth year, and the master's degree, normally awarded after the fifth year.

A successful preliminary examination, submission of a thesis and a final examination based on the contents of the thesis are required of all master's degree recipients. Specific requirements of the program and application procedures are available in the department office, or our Web site at <http://clarku.edu/biol>.

Graduate Program

The department offers course work leading to the doctor of philosophy degree in biology. The department has two foci for graduate emphasis: molecular and cell biology or ecology and evolution.

Students applying for admission must demonstrate adequate preparation in the basic sciences, an overall undergraduate record of B– or better, and satisfactory scores on the Graduate Record Examination (and TOEFL for International Students). Tuition scholarships and research and teaching assistantships are available to qualified students. Further information can be obtained from the department or our Web site at <http://clarku.edu/biol>.

Courses

040 BRAIN AND ENVIRONMENT/FIRST-YEAR SEMINAR

This seminar is a laboratory-focused course on how we use specialized systems in our brains to find out about our environment. The class as a group will conduct original research on unsolved problem in human sensory physiology: how we detect and identify a food substance as sweet. We will review the known anatomy and physiology of the brain system for taste and discuss how systems for seeing, hearing, smelling, and touching are similar. Then we will consider recent research on the problem of sweet taste, work out the details of our experimental design, test a group of human

subjects, and analyze and interpret the data. Each student will write a final paper reporting the research in the style of a scientific journal article. Enrollment is limited to 12 students. A high-school chemistry background is recommended. Fulfills the science perspective. Ms. Kennedy

101 INTRODUCTION TO BIOLOGY I/LECTURE, LABORATORY

102 INTRODUCTION TO BIOLOGY II/LECTURE, LABORATORY

This two-semester course is designed with three goals in mind: (1) to provide students with an understanding of the unifying themes in modern biology, (2) to introduce students to the diversity of life forms at all levels of organization, and (3) to illustrate the methods and modes of scientific inquiry in the biological sciences. The emphasis is on cellular and molecular biology during one semester and organismic and evolutionary biology during the other semester. Both semesters must be completed before a student can enroll in advanced courses offered to satisfy the requirements of the biology major. Qualified students must obtain approval from the chair of the department to have this requirement waived. Staff/Offered in sequence every year

104 BIODIVERSITY/LECTURE

Students will explore the diversity of life on earth and the mechanisms by which this diversity is thought to have been generated. The implications of loss of biodiversity will be considered as will the causes of biodiversity decline. Conservation issues will be addressed. Satisfies the science perspective. Not for biology majors. Ms. Foster and Mr. Hibbett/Offered alternate years

105 EVOLUTION/LECTURE, LABORATORY, DISCUSSION

An introduction to the mechanisms and patterns of evolutionary change during the earth's history. Although this course will briefly survey the major evolutionary events that have occurred since life first evolved, the emphasis

will be on mechanisms of evolutionary change (e.g. mutation, natural selection, genetic drift and gene flow) and resultant patterns (e.g. phylogenetic pattern, coevolution, stasis, adaptive radiation). Prerequisites: BIOL 101 and 102. Ms. Foster/Offered every year

106 QUANTITATIVE METHODS IN BIOLOGY/LECTURE, LABORATORY

An introduction to mathematical and statistical methods that are most useful to biologists, this course provides skills that are useful in organizing and summarizing data, graphic methods of data presentation, and testing hypotheses based on experimental results. Key mathematical methods for describing biological phenomena are included, along with basic techniques for identifying differences among groups and relationships among variables. This course may be used by biology majors to fulfill part of their mathematics requirement; alternatively, it may be counted among the required 10 biology courses for the major. Prerequisites: BIOL 101, BIOL 102, and one semester of calculus (Mathematics 120 or 124). Mr. Livdahl/Offered every year

109 MICROBIOLOGY/LECTURE, LABORATORY

Introduces the fundamental principles and methods of microbiology with applications to the biomedical and environmental sciences. Emphasis is on bacteriology. Prerequisites: BIOL 101 and 102 and Chemistry 102, or permission of instructor. Mr. Leonard/Offered every year

110 INTRODUCTION TO BOTANICAL DIVERSITY/LECTURE, LABORATORY

Biodiversity and structure of plants, protists, and fungi are examined in a phylogenetic context. The evolution of photosynthetic mechanisms, transport systems, and nutritional modes are considered, as are the ecological and economic significance of plants and other organisms traditionally studied by botanists. Prerequisites: BIOL 101 and 102. Mr. Hibbett/Offered every year

112 COMPARATIVE VERTEBRATE ANATOMY/LECTURE, LABORATORY

A review of the morphology of the vertebrates with emphasis on evolution from fishes to mammals. Anatomical analyses of organ systems are stressed. Prerequisites: Introductory Biology at the college level. Mr. Lyerla/Offered every year

114 MARINE BIOLOGY/LECTURE, FIELD TRIPS

Introduces the diversity and ecology of life in the oceans. Studies of basic physical oceanography and marine ecology precede studies of marine ecosystems such as salt marshes, kelp forests, rocky shores, plankton, and deep seas. Also included are the relationships of marine biology to the welfare of mankind. Prerequisites: BIOL 101 and 102. Ms. Robertson/Offered every year

118 GENETICS/LECTURE, LABORATORY

Investigates the nature of genes and their role in governing heredity in both prokaryotes and eukaryotes. Includes the principles of gene transmission, the nature of gene and chromosomal mutation, principles of gene mapping. Some aspects of molecular genetics and mechanisms of gene expression will be discussed but are not a major part of the course. Additional topics include population and quantitative genetics, as well as the role of genes in behavior. Also includes an integrated laboratory that highlights many aspects of the lectures. Prerequisites: BIOL 101 and 102. Mr. Thackeray/Offered every year

122 ECOLOGICAL SYSTEMS/LECTURE, LABORATORY

Introduces ecological science and practice, including population, community and ecosystem levels of approach. The objective of the course is to ground students in ecological theory and methods and to examine the impacts and consequences of human modification of natural ecosystems. Satisfies the science perspective. Ms. Foster/Offered alternative years

135 THE PARADOX OF ANIMAL SOCIALITY/LECTURE, DISCUSSION

See Psychology 135. Prerequisites: BIOL 101 and 102. Mr. Thompson/Offered every year

137 CELL BIOLOGY/LECTURE, LABORATORY

The cell as a functional unit is discussed from the molecular level to the whole cell. Included are introductions to the biochemistry and metabolic roles of some of the molecules and macromolecules that are found in cells. Also discussed are the evolution, structure, and function of the various subcellular organelles and the cytoskeleton. Emphasis is placed on understanding the molecular mechanisms behind cell physiology and the experimental methods used to determine those mechanisms. Prerequisites: BIOL 101 and 102. Mr. Larochelle/Offered every year

140 BIOLOGY OF THE BRAIN/LECTURE, LABORATORY, DISCUSSION

An introduction to the organization and function of the nervous system. Lectures focus on the human brain with reference to knowledge obtained from animal models. Includes basic information about the anatomical, physiological and chemical properties of the brain and how these properties enable us to perceive and move around in our environment.

Laboratory/Discussion sessions include demonstrations of nerve-cell signalling, testing of human reflexes and sensory perception, dissections, and discussion of issues that arise in modern neuroscience: understanding the relation between the mind and brain. Satisfies the science perspective. Prerequisites: BIOL 101 or permission of instructor. Ms. Kennedy/Offered every year

141 BRAIN AND BEHAVIOR/LECTURE, DISCUSSION

An exploration of how specific neural systems are involved in various behaviors. Emphasizes first, systems where the relationships between brain and behavior are best understood, such as perception, motivation, mood, emotion, sleep and consciousness, language and attention. Second, information from the frontiers of neuroscience about how the biology of the

brain changes as the result of the experiences of the individual, including mechanisms for learning and memory, is discussed. Prerequisite: BIOL 140. Ms. Kennedy/Offered every year

180 INTRODUCTION TO FUNGAL BIOLOGY/LECTURE, LABORATORY

Introduces the diversity, ecology, and evolution of fungi. Lectures emphasize morphological and ecological attributes of fungi, and their significance to humans. Topics to be addressed include medical mycology, fungal symbioses and nutritional modes, and fungal physiology. Laboratories will provide experience in culturing fungi and manipulating life cycles in vitro. Field trips will provide opportunities to collect and observe fungi in their natural habitats. Prerequisites: BIOL 101 and 102. Mr. Hibbett/Offered every other year

201/301 ECOLOGY OF ATLANTIC SHORES/LECTURE, FIELD TRIP

This course explores the ecology of marine organisms found in diverse Atlantic habitats, ranging from the rocky intertidal of New England to the coral reefs of Bermuda. The course includes lectures, field research, and a one-week trip to the Bermuda Biological Station for Research during semester break. An additional laboratory fee is required for this course. Prerequisites: BIOL 101, 102. Recommended: BIOL 114 or 216. Mr. Livdahl and Ms. Roberston/Offered every fall

204/304 WATERSHED ECOLOGY/SEMINAR

See Geography 204. Prerequisites: BIOL 101 and 102. Mr. Herwitz/Offered every year

213/313 CARE AND USE OF LABORATORY ANIMALS LECTURE/LABORATORY

The use of laboratory animals for research is highly regulated in order to ensure the well-being of these subjects. Their use is essential for the continuing improvement and maintenance of human health. This course will cover the federal guidelines for the procedures for the care and handling of laboratory animals, how they are implemented and how they are regulated. Practical experience in the care and han-

dling of mice, a representative laboratory animal, will be obtained through the laboratory portion of this course. Prerequisites: BIOL 112 or BIOL 140. Mr. Lyerla/Offered every year

216/316 ECOLOGY/LECTURE

Provides an overview of ecology as a scientific discipline. The primary emphasis is on efforts to explain and predict the distribution and abundance of organisms, how ecological communities are composed, and why they vary in time and space. Prerequisites: one or more courses from the organismal biology group and one college-level math course. Mr. Livdahl/Offered every year

217/317 ECOLOGY OF INFECTIOUS DISEASE/SEMINAR

Explores the relationship between infectious disease agents and their hosts, and how that interaction can effect changes in the abundance of host and pathogen populations. Factors that contribute to the occurrence and persistence of epidemics, the evolution of virulence and transmission, and strategies for controlling epidemics will be considered using theoretical approaches and case studies of diseases affecting humans and other hosts. A wide spectrum of human diseases will be considered, including human pathogens of recent concern (examples include HIV, Lyme Disease, West Nile Virus) and of historic and continuing importance (e.g., schistosomiasis, bubonic plague, malaria, smallpox, yellow fever). Prerequisites: BIOL 216, or BIOL 220. Mr. Livdahl/Offered periodically

218/318 GENETICS AND DISEASE/LECTURE, DISCUSSION

Inherited disorders in humans. Consideration of methods and results of mapping and cloning disease genes in humans. Special topics include molecular pathology, genome projects and current trends in therapies for genetic disorders. Prerequisites: Genetics and Introductory Chemistry. Good familiarity of techniques in Recombinant DNA is essential. Mr. Lyerla/Offered every year

219/322 PHYSIOLOGICAL ECOLOGY OF MARINE ALGAE/LECTURE, LABORATORY

This course will introduce upper-division undergraduate and graduate students to algal diversity and the physiological ecology of marine algae. The course will include lectures, readings, discussions, and laboratory research. Topics of discussion include evolution, biochemistry, molecular biology, and physiology of photosynthetic cells. In the laboratory, students will learn various techniques including measurements of photosynthesis, determination of enzyme activity, and methods used to examine gene expression. The topics and techniques covered in the course are readily applied to the physiology of a broad range of organisms. Prerequisites: BIOL 101, 102 and either BIOL 110, 118, or 137. Ms. Robertson/Offered every spring

220/320 POPULATION BIOLOGY/LECTURE

Examines the properties that exist only at the population level, including schedules for birth and death, population growth patterns, spatial variation in abundance, genetic variation, and the factors that modify these features over time. Prerequisites: BIOL 118 and 216, or permission of instructor. Mr. Livdahl/Offered every other year

221/321 DEVELOPMENTAL BIOLOGY/ LECTURE, LABORATORY

Considers the fundamentals of development from the molecular level up to the organismal. Emphasis is placed on the major animal model systems. Prerequisites: BIOL 137 or permission of instructor. Mr. Larochelle/Offered every year

222/333 COMMUNITY BIOLOGY/SEMINAR

Factors affecting the biological structure of natural communities are examined, with close attention to field experiments on competition and predation. Prerequisites: BIOL 101, 102 and permission of instructor. Mr. Livdahl/Offered periodically

223/323 TOPICS IN MARINE BIOLOGY/LECTURE, SEMINAR

Provides an opportunity to delve in depth into selected topics in marine biology. Studies biological oceanography, marine ecology, marine coastal and open ocean communities, and relationships between humans and the sea. Limited to 15 students. Prerequisite: BIOL 114. Ms. Robertson/Offered every other year

226/326 RESEARCH IN BIOACOUSTICS/LABORATORY, DISCUSSION

See Psychology 226. Prerequisites: BIOL 101 and 102. Ms. Wiser/Offered every year

227/327 PRINCIPLES OF CELL CULTURE/LABORATORY, DISCUSSION

An introduction to the methods used for propagation and experimental investigations of cells derived from multicellular organisms. Topics to be covered include husbandry of established cell lines, assays of cell parameters, and mycoplasma testing. Prerequisites: Cell Culture Techniques. Mr. Lyerla/Offered periodically

228/328 MOLECULAR GENETICS/LECTURE, SEMINAR

See Biochemistry and Molecular Biology 228. Prerequisite: BIOL 118 or 272, or permission of instructor. Mr. Thurlow/Offered every other year

229/329 SOMATIC AND MOLECULAR CELL GENETICS/LECTURE, LABORATORY

An introduction to the methods used for propagation and experimental investigations of cells derived from multicellular organisms. Topics to be covered include husbandry of established cell lines, preparation of media, cell selection methods, cloning, and production of cell lines. Prerequisites: Principles of Cell Culture or equivalent experience. Mr. Lyerla/Offered every year

231/331 RECOMBINANT DNA/LECTURE, LABORATORY

A laboratory-oriented course designed to introduce recombinant DNA methodology. Students undertake a semester-long project, which will vary each time the course is offered.

A typical project might involve construction of a genomic library, isolation of specific clones from the library and characterization of these clones. Methods usually include DNA purification, Southern blot hybridization, restriction enzyme mapping, bacterial transformation, polymerase chain reaction (PCR) and DNA sequencing. Prerequisite: BIOL 118 or permission of instructor. Mr. Thackeray/Offered every year

234/334 SIGNAL TRANSDUCTION/LECTURE

An advanced course exploring the various molecular and biochemical pathways through which cells communicate with themselves and the extracellular environment. Topics include protein phosphorylation, G-proteins, phospholipid metabolism, the action of oncogenes, and several ionic signalling pathways. Both lectures and student presentations of papers culled from current literature. Prerequisite: BIOL 137 or 271, or permission of instructor. Mr. Larochelle and Mr. Thackeray/Offered periodically

238/338 SEMINAR IN CELL BIOLOGY/SEMINAR

Discussion based on research papers from the current literature, will be focused on an area in cell biology selected by the participants on the first day. The weekly readings will be selected by both the students and the faculty member. The scientific content, as well as the methodology will be discussed in detail. Prerequisites: BIOL 137 or permission of the instructor. Mr. Larochelle/Offered every year

240/340 HUMAN PHYSIOLOGY/LECTURE

Introduces the principles underlying physiological function. Lectures cover the subcellular, cellular, and organ levels of organization and place a primary emphasis on the integrative processes whereby all of the diverse organs and systems contribute to the performance of the complete individual. Prerequisites: BIOL 137 or 271. Enrollment is normally restricted to juniors, seniors and graduate students. Ms. Kennedy/Offered every year

241/341 RISK ASSESSMENT IN ENVIRONMENTAL TOXICOLOGY/LECTURE

See Environment, Science and Policy 241. Ms. Brown/Offered every other year

242/342 ANIMAL BEHAVIOR/LECTURE, LABORATORY

Examines the causes and evolution of the behavior of animals. The largest part of this course will focus on the adaptive value and evolution of behavioral patterns, but a general overview of behavioral development and causation will be provided to offer the necessary background for interpretation of the ultimate causes of behavior. Prerequisites: BIOL 105 or 220 and permission of instructor. Ms. Foster/Offered even years

243/343 SEMINAR IN EVOLUTION

Discussion of a topic in evolution selected by interested students the previous fall. Readings will be from original literature. The format will be a combination of lecture and discussion. Prerequisites: BIOL 105 and 118 or 220. Permission of instructor required. Ms. Foster/Offered odd years

246/346 CANCER: SCIENCE AND SOCIETY/SEMINAR

See Environment, Science and Policy 246. Ms. Brown/Offered every other year

250/351 IMMUNOLOGY/LECTURE, DISCUSSION

Immunology is a study of the principles of innate and adaptive immunity. We first introduce the cells of the immune system, and the tissues in which they develop and through which they circulate or migrate. We discuss the specialized functions of the different types of cells and the mechanisms whereby they eliminate infection. Prerequisites: Permission from instructor. Mr. Leonard/Offered every year

252/352 SEMINAR IN MYCOLOGY/SEMINAR

This course will treat selected topics in fungal biology, emphasizing molecular approaches to fungal ecology and evolutionary biology. Topics will vary from year to year, and may include: ecology and evolution of fungal symbioses;

molecular approaches to studies of fungal biodiversity; integration of fungal genomics and fungal ecology and evolutionary biology; and evolution of fungal nutritional modes and decay mechanisms. Undergraduates are welcome, and will be graded separately from graduate students. Prerequisites: BIOL 102 and permission. Mr. Hibbett/Offered periodically

254/354 MOLECULAR EVOLUTION/LECTURE, LABORATORY

This course is designed for students who are interested in either molecular or evolutionary biology. Topics to be discussed include: evolution of genes and genomes, methods used to estimate evolutionary relationships using molecular data, and applications of molecular data to general problems in biology. The course will include lectures, student-led discussions, laboratory projects using computer-based applications, and presentations of these projects. Prerequisites: BIOL 101, 102. Mr. Hibbett and Ms. Robertson/Offered every other spring.

256/356 BIOLOGY OF SYMBIOSIS/LECTURE, LABORATORY

This course focuses on the ecological and evolutionary aspects of symbioses, the intimate associations among different species that are ubiquitous in nature. Examples of symbioses include lichens, corals, and pollination syndromes. Lectures introduce general theory regarding evolution and ecology of symbioses, and student-led discussions are based on primary research articles focusing on specific systems. Mr. Hibbett/Offered every other year

271/371 BIOCHEMISTRY I/LECTURE, LABORATORY**272/372 BIOCHEMISTRY II/LECTURE, DISCUSSION**

This two-semester course provides a comprehensive and up-to-date survey of the field of biochemistry. The first semester covers cell metabolism and protein structure and function; the second semester deals with nucleic acid and protein metabolism and other topics. A laboratory component for the first semester acquaints students with methods and instru-

mentation used in biochemical research.

Prerequisites: BIOL 101, 102, and Chemistry 132. Mr. Nelson, Mr. Thackeray, Mr. Thurlow/
Offered every year

280/380 BIOSTATISTICS AND COMPUTER APPLICATIONS/LECTURE

Provides a background in the basic methods of data analysis for biologists, applications of mathematics to the description of biological phenomena, and the generation of testable hypotheses from models of biological processes. Prerequisites: one or more biology courses beyond BIOL 101 and 102. Mr. Livdahl/
Offered every year

297 HONORS IN BIOLOGY

Readings and research for students in the honors program. Staff/Offered every year

298 INTERNSHIP

Independent research at off-campus sites for the purpose of broadening the backgrounds of qualified students. Each internship is guided by an on-site professional and a department faculty member. Staff/Offered every year

299 DIRECTED STUDY

Advanced readings or research under the direction of a department member. Prerequisite: permission of instructor. Staff/Offered every year

350 GRADUATE RESEARCH SEMINAR

Invited lecturers present seminars on varied research topics. Required for all graduate students. Offered for variable credit. Staff/Offered every semester

397 MASTER'S THESIS

Offered for variable credit. Staff/Offered every year

398 DOCTORAL DISSERTATION

Offered for variable credit. Staff/Offered every year

THE GUSTAF H. CARLSON SCHOOL OF CHEMISTRY AND BIOCHEMISTRY

Department Faculty

Daeg S. Brenner, Ph.D.: *nuclear*

Rafael Brüscheiler, Ph.D.: *physical, biophysical*

Karen L. Erickson, Ph.D.: *organic, natural products*

Frederick T. Greenaway, Ph.D.: *bioinorganic, enzymology*

Shuanghong Huo, Ph.D.: *computational chemistry, biophysical*

Alan A. Jones, Ph.D.: *polymer, physical*

Donald J. Nelson, Ph.D.: *protein chemistry, bioinorganic*

Luis J. Smith, Ph.D.: *materials science*

David L. Thurlow, Ph.D.: *molecular biology*

Mark M. Turnbull, Ph.D.: *organometallic, magnetochemistry*

Adjunct Faculty

Christopher P. Landee, Ph.D.: *physics*

Timothy A. Lyerla, Ph.D.: *somatic cell genetics*

Affiliate Faculty

David Kupfer, Ph.D.

William Royer, Ph.D.

Emeritus

Harry C. Allen Jr., Ph.D.

Edward N. Trachtenberg, Ph.D.

Wen-Yang Wen, Ph.D.

Undergraduate Program

The department offers an undergraduate program with the following goals in mind:

1. to provide a variety of course offerings that are consistent with the accreditation requirements of the American Chemical Society;
2. to offer a program that will prepare students for graduate work in chemistry and related fields;
3. to provide a strong scientific background for students planning careers in health-related professions; and

4. to encourage students not majoring in science to obtain an overview of the impact of science on society.

The department offers two tracks leading to a B.A. in Chemistry. The requirements for the two tracks are designed to allow students to choose their course work depending upon their ultimate career goals. The requirements for the tracks (Standard and ACS-Certified) are:

All students in either track must complete two courses in calculus (either Mathematics 120 and 121, or Mathematics 124 and 125) and two courses in physics (either Physics 110 and 111, or preferably Physics 120 and 121).

In addition:

ACS-Certified Track

Students must complete 11 courses in chemistry, including:

Introductory Chemistry I (101)
Introductory Chemistry II (102)
Organic Chemistry I (131)
Organic Chemistry II (132)
Environmental Chemistry (142) or
Bioanalytical Chemistry (144)
Inorganic Chemistry (250)
Physical Chemistry I (260)
Physical Chemistry II (262) or Biophysical Chemistry (264)
Biochemistry (271)

The remaining two-course requirement is normally satisfied by advanced chemistry courses, one of which may be directed research or honors. Instead of Biochemistry 271, the student may substitute Bioanalytical Chemistry and Biophysical Chemistry. On rare occasions, with advanced permission from the department, the student may substitute one advanced-level course in computer science, mathematics, physics, or biology.

Standard Track

Students must complete 10 courses in chemistry including:

Introductory Chemistry I (101)
Introductory Chemistry II (102)
Organic Chemistry I (131)

Organic Chemistry II (132)

Environmental Chemistry (142) or

Bioanalytical Chemistry (144)

One semester of Physical Chemistry (either 260, 262 or 264)

The remaining four courses must be advanced-level chemistry courses (200 or higher) and at least two of them must have laboratory sections. One course may be directed research.

The ACS-certified track is recommended for those students with a strong interest in chemistry and a desire to continue to a profession in the chemical sciences, and meets the entrance requirements for graduate study in chemistry. The standard track offers more latitude in course selection and is appropriate for those students with an interest in chemistry, but who plan to continue in one of the health professions (medical, dental, or veterinary school), public-school teaching, technical sales, etc.

The requirements for the first two years are identical, so students do not need to make a final decision on which track to follow until the end of their sophomore year, but are encouraged to discuss career plans with members of the department early to make the most appropriate choice.

A student may elect as his/her first course in chemistry : CHEM 010, 070, 080 101, 102, or 131. Science majors normally begin with CHEM 101. The decision to begin with either CHEM 102 or 131 must be made in consultation with the department and may require taking a placement examination offered at the beginning of each semester. The department encourages students with two or more years of high-school chemistry to consider this option as it allows time for additional electives in the junior and senior years. The department publishes an undergraduate handbook, Chemistry at Clark, which provides additional information. Copies are available in the department office.

Students planning graduate study in chemistry are strongly urged to take CHEM 270, 231, and/or additional advanced courses in mathematics, physics, and biochemistry. All majors are encouraged to undertake independent research projects as a candidate for honors, directed study or through one of the departments summer research fellowships, and are eligible to do so following completion of CHEM 102.

Honors Program

An honors degree program is offered for highly qualified and motivated majors. Students who want to enter this program must apply in writing to the department chairman prior to the beginning of their senior year. Participants are required to engage in an independent research project, participate in the department seminar program and pass a set of comprehensive examinations. Further information about the program can be obtained from the department chairman, or the undergraduate handbook

Minor in Chemistry

The requirements for a minor in chemistry are Introductory Chemistry I and II (101 and 102)

Organic Chemistry I and II (131 and 132)

Two additional courses in chemistry (numbered higher than 132), neither of which may be used to satisfy requirements for other majors, minors or concentrations.

Five-Year BA/MA Program

The department offers an M.A. degree in chemistry (focusing on biochemistry, organic, environmental, physical, inorganic, or analytical chemistry) to undergraduate chemistry or biochemistry majors who complete an additional four courses and submit an acceptable thesis based on original research. Details of the program are available from the department office.

Graduate Program

The department offers programs leading to the degrees of master of arts and doctor of philosophy with specialization in various fields of chemistry. Emphasis is placed on tailoring programs to fit the specific needs and desires of the graduate student. To facilitate this goal, a committee of interested faculty works with each student to advise and review his/her progress in research work and course requirements (five courses from specific areas of chemistry for Ph.D. students). Up to one year's equivalent of teaching apprenticeship will be required of all candidates for advanced degrees. In addition to formal course work, all students must pass qualifying examinations and submit and defend a research thesis.

Ph.D. candidates must pass preliminary examinations and meet the department language requirement. For further details, students should consult the appropriate departmental publications. Graduate scholarships, teaching assistantships and research fellowships are available.

Courses

010 TOPICS IN CONTEMPORARY CHEMISTRY/LECTURE, LABORATORY

This course is designed for students majoring in a social science or the humanities and is intended to develop a qualitative feeling about chemistry as it relates to the modern world. Approximately half the course is concerned with the development of modern chemical concepts; the remainder deals with current societal problems such as nuclear weapons and reactors, air and water quality, drugs, food additives, polymers, poisons and others. In-class and final exams. Staff/Offered every year.

070 PRESERVING GENOMES/LECTURE, LABORATORY/FIRST-YEAR SEMINAR

This laboratory-oriented course is offered as a first-year seminar. DNA will be isolated from endangered, rare, or exotic organisms selected by the students. The DNA will be cut into fragments and cloned using techniques involving recombinant DNA. As a result, the genes

from the organism will be preserved as a library of fragments of DNA that are maintained in a population of bacteria. No prerequisites. Students are invited to share in the excitement of preserving genes that might otherwise be lost forever. Laboratory reports, in-class and final exams. Mr. Thurlow/Offered every other year.

080 INTRODUCTION TO ENVIRONMENTAL CHEMISTRY

Focuses on three major areas of environmental concern: natural waters, soils and the atmosphere. Topics to be discussed will include: trace metals in the environment; the chemistry and geochemistry of natural organic matter; the dynamic behavior of organic contaminants in natural waters; microbiologically mediated reactions in aquatic systems; and the stratospheric aerosol and its impact on stratospheric chemistry. The laboratory phase focuses on sample collection and handling of environmental samples, the essentials of analysis of trace heavy metals, organics and dissolved gases in natural waters, and the analysis of metals and organics in solids and atmospheric samples. Mr. Nelson/Offered every other year

101 INTRODUCTORY CHEMISTRY I/LECTURE, LABORATORY

Designed to meet the needs of science majors and the prehealth program as well as those seeking a rigorous introduction to chemistry as part of their liberal-arts education. Introduces fundamental chemical concepts and applies them to a discussion of structure, bonding, and reactivity of molecules. Knowledge of high-school algebra is necessary; high-school chemistry and physics are helpful, but not required. The laboratory teaches techniques of chemical experimentation and methods of chemical analysis. In-class and final exams, laboratory reports, and quizzes. Staff/Offered every year.

101.2 INTRODUCTORY CHEMISTRY/FIRST-YEAR SEMINAR

Demonstrations, laboratory exercises and key experiments in the historical development of our understanding of chemistry will be used to

introduce the topics normally covered in Introductory Chemistry. Practical applications—such as preparation of contact explosives and pyrophoric materials—will be used to illustrate chemical principals of thermodynamics, bonding, structure, aqueous reactions, behavior of gasses and intermolecular forces. Students are expected to do extensive text work outside of class on basic material. Prerequisite: minimum of one year of high-school chemistry with a grade of B or better. Lecture and laboratory. Exams, quizzes, laboratory reports, class preparations. Fulfills the science perspective. Mr. Turnbull/Offered periodically

102.1 INTRODUCTORY CHEMISTRY II/ LECTURE, LABORATORY

Continues CHEM 101 with a discussion of thermodynamics, equilibrium theory, kinetics, electrochemistry, and the application of such theories to studies of structure and reactivity of molecules. The laboratory studies experimental techniques related to the lecture material. Prerequisite: CHEM 101 or advanced placement. In-class and final exams, laboratory reports, and quizzes. Staff/Offered every year.

102.2 INTRODUCTORY CHEMISTRY II, HONORS/LECTURE, LABORATORY

Continues CHEM 101 on an advanced (honors) level. The materials covered include solution theory, chemical kinetics, equilibrium theory, thermodynamics, electrochemistry, and nuclear chemistry for understanding the general principles underlying many chemical processes in the laboratory and in the environment. The laboratory studies phenomena related to the lecture. Prerequisite: CHEM 101 and permission of the 101 instructor. In-class and final exams, laboratory reports, and quizzes. Staff/Offered every year.

131 ORGANIC CHEMISTRY I/LECTURE, LABORATORY

Discusses the chemistry of carbon and its compounds. The structures and reactions of related classes of organic molecules are systematically

studied with emphasis on reaction mechanism and structural factors that affect reactivity. The laboratory concentrates on the preparation and physical, spectroscopic, and chemical properties of these classes of compounds. Prerequisite: CHEM 102 or advanced placement. In-class and final exams, laboratory reports. Ms. Erickson, Mr. Turnbull/Offered every year.

132 ORGANIC CHEMISTRY II/LECTURE, LABORATORY

Continues CHEM 131.

142 ENVIRONMENTAL CHEMISTRY/LECTURE, LABORATORY

Focuses on chemistry related to environmental problems, with emphasis on aquatic chemistry and aquatic and air pollution. Equilibrium theory is developed as a model for aquatic chemistry, and chemical analyses of local aquatic systems are conducted in the laboratory according to EPA procedures. Prerequisite: CHEM 102 or advanced placement. In-class and final exams, laboratory reports. Mr. Nelson/Offered every year.

144 BIOANALYTICAL CHEMISTRY/LECTURE, LABORATORY

See Biochemistry and Molecular Biology 144. Mr. Nelson/Offered every year.

222/322 STATISTICAL THERMODYNAMICS/LECTURE

Gives an introduction to statistical mechanics, thermodynamics, and chemical kinetics with applications to problems in chemistry and biochemistry. Mr. Bruschweiler/Offered periodically

228 MOLECULAR GENETICS/LECTURE

See Biochemistry and Molecular Biology 228. Mr. Thurlow/Offered every year

231/331 ADVANCED ORGANIC CHEMISTRY/LECTURE

Provides a framework for students who wish to pursue an interest in organic chemistry beyond the level covered in CHEM 131/132 by bridging the gap between material in standard elementary organic texts and the original litera-

ture. Advanced topics selected from structure and reaction mechanisms include stereochemistry and ionic, free radical, carbenoid, and concerted reaction mechanisms. Prerequisite: CHEM 132. Ms. Erickson/Offered every other year.

233/333 SYNTHETIC ORGANIC CHEMISTRY/LECTURE

The synthesis of organic compounds is discussed. Topics include the scope and limitations of general methods, mechanistic aspects and stereochemistry. Special emphasis is placed on the total synthesis of complex molecules from design of methods to execution. Prerequisite: CHEM 231 or permission. Mr. Turnbull/Offered every other year.

235/335 NATURAL PRODUCTS/LECTURE

The structure, biosynthesis and chemistry of selected secondary metabolites including steroids, terpenoids, alkaloids, and actogenins of both terrestrial and marine origin are discussed. Biogenetic theory is used extensively to emphasize the simplicity within the complexity of those natural products. Structure determination by modern spectroscopic methods is also discussed. Prerequisite: CHEM 132. Ms. Erickson/ Offered every other year

236/336 ORGANOMETALLIC CHEMISTRY/LECTURE

Covers material related to compounds containing one or more covalent metal-carbon bonds. The material progresses from the traditional organometallics such as Grignards and cuprates through the transition metal and main group complexes. Emphasis is placed on the properties of organometallic compounds and mechanisms of their formation and subsequent reactions. Because of the continuing development of the field, use of the primary literature is stressed. A comparison of traditional organic and inorganic chemistry is developed through this intermediate field. Prerequisite: CHEM 132 and 250 or permission of the instructor. Mr. Turnbull/Offered every other year.

**242/342 NUCLEAR SCIENCE/LECTURE,
LABORATORY**

Covers the fundamentals of nuclear chemistry and physics: production, isolation, identification, structure, and measurement of radioactive atoms. Prerequisite: permission of the instructor. Mr. Brenner/Offered periodically.

**250/350 INORGANIC CHEMISTRY/LECTURE,
LABORATORY**

Deals with theories of structure and bonding and their utility in explaining the chemistry of inorganic substances. Topics include: molecular orbital, valence bond, and crystal field theories of bonding and examples of the use of theories in explaining the structure and reactivities of inorganic molecules; acid base theory; spectroscopic methods; and kinetics. Emphasis is placed on the interpretation of structure and reactivity in terms of basic molecular and atomic parameters, and on reaction pathways. Prerequisite: CHEM 132, and 142 or 144. Mr. Turnbull/Offered every year

252 BIOINORGANIC CHEMISTRY/LECTURE

See Biochemistry and Molecular Biology 252. Mr. Greenaway/Offered periodically

**260/360 PHYSICAL CHEMISTRY/LECTURE,
LABORATORY**

Covers basic principles of quantum mechanics and their application for understanding fundamental aspects of atomic structure and molecular bonding. Requires a good working knowledge of calculus (entrance exam). The laboratory includes experiments in general physical chemistry. Prerequisite: Mathematics 121 or 125 and CHEM 132. Staff/Offered every year.

**261/361 MAGNETIC RESONANCE
THEORY/LECTURE**

The theory of static and time-dependent interactions involved in magnetic resonance spectroscopy is presented. Energy states are defined on the basis of the time-independent Hamiltonian and reflect symmetry. The time-dependent terms in the Hamiltonian are used to develop descriptions for line-shape collapse and relaxation. Prerequisite: CHEM 270. Mr. Jones/Offered every other year.

**262/362 PHYSICAL CHEMISTRY II/LECTURE,
LABORATORY**

Continues CHEM 260 covering fundamental aspects of physical chemistry from a molecular perspective. Topics that are covered include Boltzmann's law, statistical mechanics, thermodynamics, phase equilibria, ideal and nonideal solutions, chemical equilibrium, chemical kinetics, and molecular spectroscopy. Prerequisite: CHEM 260. Staff/Offered every year.

**264/364 BIOPHYSICAL CHEMISTRY/LECTURE,
LABORATORY**

See Biochemistry and Molecular Biology 264. Mr. Nelson/Offered every other year.

266/366 BIOMOLECULAR NMR/LECTURE

Covers theory and application of multidimensional nuclear magnetic resonance (NMR) spectroscopy for the study of structure and dynamics of biomolecules in solution. The course assumes a basic knowledge of quantum mechanics. Mr. Bruschweiler/Offered periodically.

270/370 QUANTUM CHEMISTRY/LECTURE

Covers the quantum-mechanical treatments of the structure of atoms and molecules, and teaches the use of modern quantum chemistry programs. Prerequisite: CHEM 262 or 264. Mr. Bruschweiler/Offered every other year.

271/371 BIOCHEMISTRY I/LECTURE, LABORATORY**272/372 BIOCHEMISTRY II/LECTURE**

See Biochemistry and Molecular Biology 271 and 272. Mr. Nelson, Mr. Thackery, Mr. Thurlow/Offered every year.

273 PRINCIPLES OF MOLECULAR MODELING

This course is intended mainly for advanced undergraduates and graduate students. The aim of the course is to introduce the principles and algorithms of molecular modeling and to illustrate how these algorithms can be used to study biochemical/biophysical phenomena. We will go over basic elements of classical molecular simulations, focusing of force fields, energy minimization, molecular dynamics and Monte Carlo. Ms. Huo/Offered every other year

281/381 POLYMER SCIENCE/LECTURE

The physical chemistry of synthetic polymers is presented, including discussion of kinetic mechanisms of polymerization, molecular weight distributions, unperturbed dimensions, structure and conformation, viscosity, and dynamic properties. Specific experimental methods useful in polymer chemistry such as osmotic pressure, light scattering, gel permeation chromatography, viscoelastic response, NMR, and dielectric response also are reviewed. Prerequisite: CHEM 262 or 264. Mr. Jones/Offered periodically.

289/389 RESEARCH METHODS/LECTURE, LABORATORY

Deals with the application of analytical tools widely used in the laboratory. Topics include NMR, EPR, IR, Raman, UV-visible, mass, and fluorescence spectroscopy, chromatography, electrophoresis, electrochemistry, and other techniques. Emphasizes practical knowledge for data interpretation and instrument operation. Quarter-credit courses lasting four to five weeks are offered periodically. Prerequisite: CHEM 262 or 264 or permission. Staff.

297 HONORS

For majors seeking departmental honors in chemistry. Involves a laboratory research project and participation in department seminars. Offered for variable credit. Prerequisite: permission of the department chairman. Staff/Offered every semester.

299 DIRECTED STUDY

Individual investigations that involve laboratory and literature research. Offered for variable credit. Prerequisite: permission. Staff/Offered every semester.

380 RESEARCH CONFERENCE/SEMINAR

Consists of reports on research and discussions of recently published work. Guest lectures, staff, graduate students/Offered every semester.

399 INDEPENDENT STUDY

Offered for variable credit. Staff/Offered every semester.

COMMUNICATION AND CULTURE

Participating Faculty

Fern Johnson, Ph.D., program director, English: sociolinguistics, feminist linguistics, cultural foundations of communication, language in media

Gauvin Bailey, Ph.D., Visual and Performing Arts: Renaissance and Baroque art; Asian art; Latin-American art

Marcia Butzel, Ph.D., Visual and Performing Arts: film criticism, theory and history; gender and film, comparative arts

Parminder Bhachu, Ph.D., Sociology: urban anthropology, popular cultural forms, cultural production, transnational diaspora cultures, immigration and new markets

Martyn Bowden, Ph.D., Geography: cultural humanistic and historical/urban/social geography

Eric Gordy, Ph.D., Sociology: sociological theory, sociology of culture, media and music, political and historical sociology, Balkan societies

Matthew Malsky, Ph.D., Visual and Performing Arts: composer, electronic music and multimedia

Sarah Michaels, Ph.D., Education: relationships among language, discourse, culture and schooling; teacher research

Timothy Shary, Ph.D., Screen Studies: American cinema, film genre, television studies

Jaen Valsiner, Ph.D., Psychology: cultural psychology and history of ideas

Program

The communication and culture major is designed to engage students in focused inquiry into the cultural foundations of communication in its various forms. As a liberal-arts major, the program of study emphasizes the development of a conceptual framework for understanding the role of communication in both transmitting and creating culture through practices of verbal and nonverbal communication. Through an interdisciplinary approach involving faculty from different fields of exper-

tise in the humanities and social sciences, students study media, discourse, and global influences and developments in communication. The curriculum covers historical and current topics, and the range of communicative forms considered includes visual and graphic images, everyday discourse, literary works, journalistic writing, music, and material productions. Although not a production-oriented or preprofessional major, students have opportunities for practicum and internship learning. The faculty is committed to providing the type of sound critical and conceptual grasp of communication that is essential for intelligent participation and leadership in the various fields of communication.

For details regarding the major, students should consult the Majors' Handbook, which is available online, in the Communication and Culture Program Office, and at the Academic Advising Center.

The curriculum and requirements for the major have been revised recently, with the new structure organized into three paths of emphasis: (1) media dimensions, (2) discourse dimensions, and (3) global dimensions, which includes courses in both media and discourse studies that emphasize some aspect of global communication. With the exception of the introductory course (COMM 101), all courses are cross-referenced with the departments in which they originate.

Requirements for the Major (11 course units minimum)

Each student will select, in consultation with her or his adviser, a path of emphasis from the three available options. Within that path, students will concentrate their elective courses and build further specialization through choices of advanced seminars and internships. No exceptions will be made to the structure listed below.

1. COMM 101: Communication
and Culture
- 1 unit

2. Seven elective courses
- 7 units
- minimum of four and maximum of five must be in path of emphasis
 - minimum of three must be at the 200 level
 - maximum of two practicum courses, which must be in a sequence
3. One Integrative Seminar
(200 level)
- 1 unit
4. Approved internship or project
- 1-2 units
5. Senior Capstone Seminar or
Project in path of emphasis
- 1-2 units
- (Honors thesis option for qualified students.)

Students must complete COMM 101 before taking the integrated seminar.

Course prerequisites are listed for specific courses and may be different for communication and culture majors than for students taking the course in the department from which it is cross-referenced. Students should consult semester schedules carefully to determine prerequisites.

Students must earn a **grade of C or better** in all courses contributing to the major program of study.

For more information about the communication and culture major, call 508-793-7180.

Requirements for Minor

The minor in communication and culture is designed to provide concentrated study in one of the three paths. The minor requires a minimum total of six course units as follows.

1. COMM 101: Communication and Culture
2. Five additional COMM courses:
- three courses in one path of emphasis
 - one course in each of the other paths of emphasis
 - minimum of two 200-level courses
 - maximum of one practicum course

Students must earn a grade of C or better in all courses contributing to the minor.

Courses

I. Introductory Course

COMM 101: COMMUNICATION AND CULTURE

Examines the ways in which communication creates and represents ideology, social orders, and cultural identities. Emphasis is on critical analysis of communication in contemporary society. Subjects include culture-based metaphor, nonverbal communication, advertising, print media, and television. Staff/offered every year

II. Path 1: Media Dimensions

Electives in Media Dimensions

010 FROM THE STONE AGE TO OUR AGE

See Art History 010. Staff/Offered every year

012 MUSIC AS CULTURE

See Music 011. Staff/Offered every year

013 POP MUSIC IN USA

See Music 012. Mr. Malsky/Offered periodically

103 INTRO TO SCREEN STUDIES

See Screen Studies 010. Ms. Butzel, Staff/Offered every semester

108 TWENTIETH-CENTURY MUSIC

See Music 103. Mr. Malsky/Offered every year

117 FACTUAL FILM & TELEVISION

See Screen Studies 123. Mr. Shary /Offered periodically

118 HISTORY OF AMERICAN BROADCASTING & ELECTRONIC MEDIA

See Screen Studies 122. Staff/Offered every other year

123 INTERMEDIATE PHOTOGRAPHY*

See Studio Arts 121. Mr. Rosenstock, Mr. DiRado/Offered every semester

125 GRAPHIC DESIGN PROJECTS*

See Studio Arts. Ms. Bodenweber/Offered every year

135 MEDIA AND SOCIETY

See Sociology 135. Mr. Gordy/Offered every year

143 INTERACTIVE COMPUTER MUSIC

See Music 141. Mr. Malsky/Offered every year

161 CRITICAL PERSPECTIVES ON T.V. CULTURE

See Screen Studies 161. Mr. Shary/Offered periodically

170 COMPUTER MEDIATED COMMUNICATION

Explores the characteristics of the computer medium and its technology together with its effects on the process and dynamics of human communication and society. Internet communication (including its relationship to interpersonal and mass communication and to gender) will be considered by focusing on electronic mail, listservs, chatrooms, discussion boards, and computer conferencing. Staff/Offered periodically

171 STORYTELLING THROUGH VIDEO*

See Screen Studies 171. Mr. Simon/Offered every year

205 CULTURE AND THE NEWS

See English 205. Staff/Offered periodically

207 DIGITAL EDITING/PRODUCTION IN VIDEO

See Screen Studies 207. Mr. Simon/Offered every year

208 TYPOGRAPHY*

See Studio Arts 208. Ms. Buie/Offered every year

209 INTRO TO INTERACTIVE DESIGN*

See Studio Arts 209. Mr. Quarkenbush/Offered every year

210 HISTORY OF MUSIC SEMINAR

See Music 210. Staff/Offered periodically

211 AMERICAN CONSUMER CULTURE

See History 211. Ms. Richter/Offered periodically

250 PHOTOGRAPHY STUDIO*

See Studio Arts 250. Staff/Offered every year

254 GRAPHIC DESIGN STUDIO*

See Studio Arts 254. Ms. Buie/Offered every year

277 VIDEO PRODUCTION STUDIO*

See Studio Arts 278. Mr. Simon/Offered

III. Path 2: Discourse Dimensions

Electives in Discourse Dimensions

020 TRANSFORMATIVE SCHOOLING: CULTURE, COMMUNITY, EDUCATION & SOCIETY

See Education 112. Ms. Michaels/Offered every year

121 SHAKESPEARE RECYCLED

See English 120. Ms. Vaughan/Offered every year

134 LATINO LITERATURE AND MEDIA ARTS

See Comparative Literature 134. Mr. D'Lugo/Offered periodically

150 DISCOURSE AND CULTURAL STUDIES: FIELD RESEARCH

This course studies the nature of human communication-both in language and other sign systems (e.g., cultural artifacts, media, and social interactions)-within and across diverse cultures and social institutions. It focuses on tools for analyzing communication in context with reference to its psychological, social, cultural, and political implications. Ms. Michaels/offered every year

158 DISCOURSE, SUBJECTIVITY, AND THE SELF

See Psychology 158. Mr. Bamberg/Offered periodically

162 LANGUAGE, EMOTION, THOUGHT, & CULTURE

See Psychology 160. Ms. Budwig/Offered periodically

194 CULTURE AND SPORT

See Geography 196. Mr. Bowden/Offered every other year

195 PSYCHOLOGY, COMMUNICATION AND THE SELF

See Psychology 193. Mr. Bamberg/Offered every year

196 ORAL ADVOCACY

See English 196. Ms. Johnson/Offered every other year

202 FEATURE WRITING I*

See English 202. Staff/Offered every year

203 FEATURE WRITING II*

See English 203. Staff/Offered every year

204 WRITING FOR MAGAZINES*

See English 204. Mr. Tappley/Offered periodically

212 ACTOR AS THINKER*

See Theatre Arts 212. Mr. Munro/Offered every other year

215 LANGUAGE & CULTURE IN THE U.S.

See English 215. Ms. Johnson/Offered every year

242 PHILOSOPHY OF LANGUAGE

See Philosophy 242. Mr. Pakaluk, Mr. Hendricks/Offered periodically

247 THEORETICAL MODELS OF COMMUNICATION IN PSYCHOLOGY

See Psychology 247. Mr. Valsiner/Offered periodically

248 SIGNS/CROSSROADS: SEMIOTICS

See English 249. Ms. Gertz/Offered periodically

259 AMERICAN WEST AS IMAGE, SYMBOL, AND MYTH

See Geography 259. Mr. Bowden/Offered every other year

268 COMMUNICATIVE DEVELOPMENT

See Psychology 268. Ms. Budwig/Offered periodically

279 FICTIONS OF ASIAN AMERICA

See English 279. Ms. Huang/Offered periodically

280 EARLY AMERICAN POP CULTURE

See English 280. Ms. Roberts/Offered every other year

293 HISTORY OF THE ENGLISH LANGUAGE

See English 294. Ms. Gertz/Offered periodically

IV. Path 3: Global Dimensions

Electives in Global Dimensions

017 CULTURE, PLACE AND THE ENVIRONMENT

See Geography 017. Mr. Bowden/Offered every year

130 THE NATIONAL IMAGINATION

See Comparative Literature. Staff/Offered every year

137 GENDER, SPACE AND ENVIRONMENT

See Geography 136. Ms. Rocheleau/Offered every year

138 STUDIES IN CONTEMPORARY FRENCH CULTURE

See French 147. Ms. Kaufmann/Offered every other year

142 CITIES AND CULTURE: THE AMERICAN CITY

See Geography 142. Mr. Bowden/Offered every year

156 CULTURAL PSYCHOLOGY

See Psychology 156. Mr. Valsiner/Offered every year

159 LATIN-AMERICAN ART

See Art History 159. Mr. Bailey/Offered periodically

160 CULTURAL IDENTITIES AND GLOBAL PROCESSES

See Sociology 161. Ms. Bhachu/Offered every year

164 THE ARTS OF ASIA

See Art History 160. Mr. Bailey/Offered every other year

165 THE ARTS OF ISLAM

See Art History 161. Mr. Bailey/Offered every other year

241 CITIES AND CULTURES: THE EUROPEAN CITY

See Geography 242. Mr. Bowden/Offered every other year

249 THE FRENCH-SPEAKING WORLD

See French 249. Ms. Kaufmann/Offered periodically

260 ROOTS AND ROUTES

See Sociology 260. Ms. Bhachu/Offered periodically

278 THE CREATION OF NATIONALISMS, NATIONALIST CULTURE AND SYMBOLS

See Sociology 255. Ms. Bhachu/Offered every other year

Integrative Seminars

The integrative seminars are courses at the 200 level that treat a particular topic through different disciplinary perspectives or that bring together two or more topics from different domains of communication and cultural analysis. These seminars are listed separately below. At least one integrative seminar is offered each semester and new topics may be added. Interested students may petition the director of the program to substitute a second integrative seminar for an elective course.

V. Integrative Seminar Courses**216 ARCHITECTURE & DEMOCRACY**

See Art History 216. Mr. Townsend/Offered every other year

230 SOCIOLOGY OF CULTURE

See Sociology 231. Mr. Gordy/Offered other year

231 SOUNDTRACKS

See Music 200. Mr. McGinn/Offered periodically

234 CONVERGING CULTURES IN THE AGE OF DISCOVERY

See Art History 232. Mr. Bailey/Offered periodically

240 END OF AMERICA: LOS ANGELES

See Geography 240. Mr. Bowden/Offered every other year

251 LANGUAGE DEVELOPMENT

See Psychology 251. Ms. Budwig/Offered periodically

253 NARRATIVE DISCOURSE

See Psychology 253. Ms. Budwig/Offered periodically

257 LANGUAGE AT ISSUE

See English 257. Ms. Johnson/Offered every other year

275 CULTURE, CONSUMPTION AND CLASS IN LOCAL AND GLOBAL CONTEXTS

See Sociology 250. Ms. Bhachu/Offered every other year

Senior Capstone

The senior capstone in communication and culture requires that the student participate in original research or creative activity or produce an individual project related to some aspect of her or his path emphasis. At the end of the junior year, majors receive information about options available for the senior capstone. Based on this information, each student selects one of the senior capstone seminars, proposes an independent study project or, if qualified, proposes an honors thesis project. All projects and theses must be supervised by a member of the communication and culture faculty. For honors theses, a second faculty member, who will serve as an evaluator, is selected through a consultation process between the student and his or her thesis adviser. Information regarding honors theses, which are yearlong projects, is contained in the Majors' Handbook.

Courses that have been offered as senior capstone seminars are listed below. New courses are added from time to time. Note that a student who takes a designated capstone seminar earlier than the senior year may count this course toward major elective requirements but may not use the course to fulfill the capstone requirement.

VI. Senior Capstone Courses

273 EFFECTS OF MASS MEDIA

See Sociology 273. Mr. Gordy/Offered every other year

276 ADVANCED TOPICS IN CULTURAL PSYCHOLOGY (TOPIC DEPENDENT)

See Psychology 276. Mr. Valsiner/Offered periodically

274 NEW MEDIA THEORY AND PRACTICE

See Music 200. Mr. Malsky/Offered periodically

285 FILM AS NARRATION

See Screen Studies 284. Ms. Butzel/Offered every other year.

288 GENDER AND FILM

See Screen Studies 288. Ms. Butzel/Offered every other year

290 ADVANCED TOPICS: FILM GENRE

See Screen Studies 289. Staff/Offered every year

294 GLOBAL ETHNOGRAPHIES

See Sociology 294. Ms. Bhachu/Offered periodically

295 GENDER AND DISCOURSE

See English 295. Ms. Johnson/Offered every other year

COMPARATIVE LITERATURE

Participating Faculty

Kenneth Hughes, Ph.D., *program director: 18th- to 20th-century European and American literature, literary theory*

Paul F. Burke Jr., Ph.D.: *Greek and Latin language and literature, classical mythology, classical art and archaeology*

Marvin A. D'Lugo, Ph.D.: *Hispanic literature and film, Latino narrative*

William Ferguson, Ph.D.: *Spanish Golden Age literature, 20th-century Hispanic literature*

Everett Fox, Ph.D.: *Jewish ritual and folklore, Classical Jewish thought*

Beth W. Gale, Ph.D.: *19th- and 20th- century French literature, women and the novel, cultural studies*

Dorothy Kaufmann, Ph.D.: *French feminism, literature and existentialism, French and*

Francophone cultural studies, European novel

Walter Schatzberg, Ph.D.: *age of Goethe, German expressionism in literature and the arts, German cinema, relations of literature and science*

Michael K. Spingler, Ph.D.: *French theater and film, comparative drama, translation*

Daniel Jiro Tanaka, Ph.D.: *20th-century German literature and philosophy, aesthetic theory*

Adjunct Faculty

Martyn J. Bowden, Ph.D.

Marcia Butzel, Ph.D.

John Conron, Ph.D.

SunHee Kim Gertz, Ph.D.

Undergraduate Program

Comparative literature is a wide-ranging, multicultural program of studies in poetry, prose, drama, film, and related arts. Housed in the Department of Foreign Languages and Literatures, the program is by nature interdisciplinary and has strong ties with other departments in the University. In addition to the courses offered by the department in comparative literature and literatures in foreign languages, the student is encouraged to take courses in English, history, philosophy, and visual and performing arts. One of the special aspects of the program is the emphasis on developing a practical and critical approach to texts. This may take the form of play production, seminars in translation of lyric poetry and drama, and supervised work in contemporary critical theory (i.e., relations between text and performance, spectator positioning, and reader response).

Requirements

1. Four courses beyond the intermediate level in one or more foreign languages. (An intermediate-level course in a second foreign language may be used in certain cases toward the fulfillment of the language course requirement.)
2. Four courses in comparative literature, at least two of which should have a strong theoretical component.
3. Five related courses, to be selected by the student in consultation with a faculty adviser. One of these must be Comparative Literature 130, The National Imagination

Courses

117 INTRODUCTION TO THE HEBREW BIBLE I: NARRATIVE AND LAW/LECTURE, DISCUSSION

See Jewish Studies 117. Mr. Fox/Offered every year

118 INTRODUCTION TO THE HEBREW BIBLE II: PROPHECY AND POETRY/LECTURE, DISCUSSION

See Jewish Studies 118. Mr. Fox/Offered every year

120 THE EPIC JOURNEY/LECTURE, DISCUSSION

A comparative and cross-cultural examination of the epic as a recurring literary form. Special attention is paid to the various forms and functions of the hero's journey. Defines and articulates the various types of epic voyage and relates their differences and similarities to the values of the societies that gave rise to them. Included in the term's reading are selections (in English translation) from Homer's *Odyssey*, Vergil's *Aeneid*, Apollonius's *Argonautica* and Apuleius's *Ass. Mr. Burke*/Offered every other year

121 SURVEY OF INTERNATIONAL FILM MOVEMENTS/LECTURE, DISCUSSION

See Screen Studies 121. Ms. Butzel/Offered periodically

123 THE MIDRASHIC TRADITION/LECTURE, DISCUSSION

See Jewish Studies 123. Mr. Fox/Offered every other year

125 CROSSING BOUNDARIES/LECTURE, DISCUSSION

Beginning with Salman Rushdie's notion of "imaginary homeland," we will consider the questions raised by crossing boundaries: Where is home? How do writers create bridges between worlds of here and there, past and present, public and private, reality and fantasy? What is the role of language in constructing identity? How does the crossing of boundaries affect the stories of who we are? Readings will include contemporary autobiographical narratives focusing on migration and/or cultural displacement. We will explore the issues posed by these texts for students' own lives as individuals, as members of the Clark community, and as citizens of a global society. Fulfills the comparative perspective requirement. First preference for enrollment in this course will be given to students in the International Studies Stream. Ms. Kaufmann/Offered periodically

130 THE NATIONAL IMAGINATION: TOPICS IN LITERATURES AND CULTURES/LECTURE, DISCUSSION

This course explores the concept of a national community as constructed and critiqued through literary and cinematic narratives as well as other cultural texts. Special emphasis is given to the ways in which national languages have been used to promote the sense of cultural continuity and identity for various national communities. Variable content. This is a team-taught course with national focus changing depending upon the participation of particular members of the Foreign Languages faculty. Staff/Offered every year.

134 LATINO LITERATURE AND MEDIA

See Spanish 134. Ms. Acosta Cruz, Mr. D'Lugo/Offered periodically

150 JOURNEYS WITH HYPHENATED AMERICANS: EMERGING IDENTITIES; EVOLVING CULTURES/FIRST-YEAR SEMINAR

The American "melting pot," once a national myth, has now become a cultural cliché often derided by contemporary ethnic communities. Forged largely around the migration of Europeans to the United States in the early 20th century, that fiction of national identity has since been rewritten and transformed through works that reflect the experiences of men and women who have come from non-European backgrounds: Native Americans, African-Americans, Latinos, and Asian-Americans. This seminar traces some of the shifts in these stories of migration in both fiction and film, in works ranging from the uplifting autobiographies of European immigrants at the beginning of the 20th century to Robert Rodriguez's irreverent Chicano movie, *Spy Kids*, at the century's end. In debunking the melting pot, writers and filmmakers have produced a highly imaginative and yet subversive counter-mythology that forces us to reconsider many of the commonplaces about American cultural identity. Fulfills the verbal expressions requirement. Mr. D'Lugo/Offered periodically

151 INTRODUCTION TO MEDIEVAL LITERATURE/LECTURE, DISCUSSION

See English 150. Ms. Gertz/Offered every year

152: LYRIC POETRY: SONGS OF THE SELF/FIRST-YEAR SEMINAR

Through a study of selected lyrical works, drawn from many different centuries and a variety of cultures, this seminar investigates the deepest roots of human self-expression, the power of metaphor, and the beauty of image-making in words. Texts are taken from the 20th-century Anglo-American tradition (Moore, Auden, Eliot, Roethke, Levertov); or from certain older English-language contexts (Wyatt, Smart, Coleridge); as far as possible, texts from non-English speaking cultures are presented both in literary translation and in the original to give the English-speaking student insight into the cadences of the other language. Students with knowledge of a foreign language are encouraged to do comparative work in that language and in English. Students write several critical essays over the semester on class-readings and individually-assigned projects. Fulfills the verbal expression requirement. First preference for enrollment will be given to students in the International Studies Stream. Others will be admitted on a space available basis. Mr. Ferguson/Offered periodically

155 STUDIES IN ITALIAN FILM: NEOREALISM/LECTURE, DISCUSSION

Explores the political, cultural, and aesthetic role of Neorealist cinema in Italy. The linkage of film, history, and nationality during the years 1942-1951 leads to broader questions concerning the relations between art and politics in fascist, *Resistenza*, and contemporary Italian culture. In addition to film texts and selections from the critical debate over Neorealism in film and cultural history, we consider both precursors and inheritors of Neorealist cinema. Ms. Butzel/Offered every other year

160 FRENCH CULTURE SEEN THROUGH FILM: JEAN RENOIR/LECTURE DISCUSSION

See French 160. Mr. Spingler/Offered periodically

175 LITERATURE AND EXISTENTIALISM/SEMINAR

An introduction to major writers and themes of existentialism from Dostoyevsky, Kierkegaard, and Nietzsche to Sartre, Beauvoir, and Camus. Beginning with a study of the cultural origins of existentialism as a distinctively modern, European sensibility, we explore why and how existentialist thought has found expression with unique appropriateness as both philosophical literature and literary philosophy. Ms. Kaufmann/Offered periodically

180 JAPANESE CULTURE AND LITERATURE IN TRANSLATION/LECTURE, DISCUSSION

See Japanese 180. Taught in English. Ms. Valentine/Offered periodically

181 THE LITERATURE OF MODERN SPAIN IN TRANSLATION/LECTURE DISCUSSION

Readings representing the major authors and trends in the literature of Spain in the 19th and 20th centuries. Emphasizes the realist novels of Galdós and Clarín in the 19th century; the philosophical novels of Unamuno and Pérez de Ayala, poetry and theater of Lorca, and the post-modernist narratives of Goytisolo in the 20th century. Mr. D'Lugo/ Offered periodically

188 THE CULTURE OF THE WEIMAR REPUBLIC IN LITERATURE, FILM, AND THE ARTS/LECTURE, DISCUSSION

See German 188. Mr. Schatzberg/Offered periodically

205 THE PLAY AND ITS STAGES/SEMINAR, WORKSHOP

A critical approach to the dramatic text based on historical and material conditions of performance. Considers the changing ways that meanings are made through styles and conventions of performance (including set, costume, mask, and vocal delivery), which are specific to historical and cultural moments. Playwrights considered may include Sophocles, Shakespeare, Racine, Molière, Chekhov, Ibsen, Brecht, Genet, and Beckett. Scene work. Mr. Spingler/Offered periodically

206 LANGUAGES OF THEATER/SEMINAR, DISCUSSION

A study of the way meanings are made in theater through structure and sign. Examines the function of nonverbal communication in theater, especially mask, gesture, movement, and sound. Plays may include works of Euripides, Shakespeare, Cocteau, Apollinaire, Jarry, Genet, and Pinter. Critical works read include Artaud's *The Theater and its Double*, Brook's *The Empty Space*, and Grotowski's *Towards a Poor Theater*. Scene work. Cross-referenced with Theater 206. May be taken as a companion course to Comparative 205. Mr. Spingler/Offered periodically

210 COMING OF AGE IN THE FRENCH NOVEL/LECTURE, DISCUSSION

See French 210. Ms. Gale/Offered periodically.

215 20TH CENTURY FRENCH AND FRANCOPHONE WOMEN WRITERS/LECTURE, DISCUSSION

Explores the major works of French fiction and theory as they question and illuminate each other in the context of the contemporary French feminist controversy between theories of equality and theories of difference. Readings include Colette, Simone de Beauvoir, Hélène Cixous, Marguerite Duras, Luce Irigaray, Monique Wittig, Julia Kristeva. Prerequisite: permission of the instructor. Ms. Kaufmann/Offered periodically

220 THE RUSSIAN NOVEL IN THE 19TH CENTURY/LECTURE, DISCUSSION

See Russian 220. Mr. Hughes/Offered periodically

225 LITERATURE AND FILM OF GERMAN-OCCUPIED FRANCE/SEMINAR, DISCUSSION

See French 225. Ms. Kaufmann/Offered periodically

240 STUDIES IN MODERN NARRATIVE FORM/LECTURE, DISCUSSION

Investigates modifications of the traditional novel form in the 20th century, changes which have enabled the novel to maintain its position as the pre-eminent literary genre. Authors studied include: Joyce, Woolf, Beckett, Thomas Mann, Robbe-Grillet, D.M. Thomas, and Doctorow. Mr. Hughes/Offered periodically

246 STUDIES IN SPANISH CINEMA/LECTURE, DISCUSSION

See Spanish 246. Conducted in English.
Mr. D'Lugo/Offered periodically

247 STUDIES IN HISPANIC CINEMA/LECTURE, DISCUSSION

See Spanish 249. Conducted in English.
Mr. D'Lugo/Offered periodically

248 STUDIES IN LATIN- AMERICAN CINEMA/ LECTURE, DISCUSSION

See Spanish 248. Mr. D'Lugo/Offered periodically

249 SIGNS & CROSSROADS/SEMINAR

See English 249. Ms. Gertz/Offered periodically

250 MEDIEVAL LITERATURE/SEMINAR

See English 250. Ms. Gertz/Offered every other year

254 STILL SPACES—EAST MEETS WEST: CONTEMPLATIVE PRACTICE IN THE CLASSROOM

See English 254. Ms. Gertz/Offered every year

256 LESSONS LEARNED: EDUCATION IN THE TWENTIETH-CENTURY NOVEL/LECTURE DISCUSSION

An exploration of literary portrayals of youth and the passage to adulthood, with a focus on the role of the school. Topics include the adolescent body, gendered identity, social structures and narrative strategies. Authors studied may include Colette, Alain-Fournier, Gide, Sagan, Ernaux, and Duras. Taught in French. Prerequisite: 131 and another course at the 130 level in French or permission. Ms. Gale/offered periodically

278 MODERN POLITICAL LITERATURE: CLASS, RACE, GENDER, ETHNICITY/SEMINAR

See English 278. Mr. Sultan/Offered periodically

288 ART OF THE CITY: PARIS AND NEW YORK/ DISCUSSION

A comparative structural and cultural analysis of two urban designs, Haussmann's Paris and Olmsted's New York, the visual representation of the two cities, and the literary interpretation of the cities. The cities will be considered as theaters in which cultural meanings are produced through spatial composition and perfor-

mances in the set. Among the questions to be explored is the matter of cultural kinships and differences between France and the United States. Prerequisite: Permission of either instructor. Mr. Conron, Mr. Spingler/Offered periodically

294 HISTORY OF THE ENGLISH LANGUAGE/ SEMINAR

See English 294. Ms. Gertz/Offered periodically

299 GENDER AND FILM/LECTURE, DISCUSSION

See Screen Studies 288. Ms. Butzel/Offered every other year

COMPUTER SCIENCE

Program Faculty

Jerry Breecher, Ph.D.: *performance evaluation*

Arthur Chou, Ph.D.: *algorithms, complexity theory*

Frederic Green, Ph.D.: *theory of computation, complexity theory, quantum computing*

Li Han, Ph.D.: *computer simulation, software engineering, robotics, computer animation*

David Joyce, Ph.D.: *semantics of programming languages*

Natalia Sternberg, Ph.D.: *scientific computing*

Undergraduate Major

The department views computer science as an academic discipline firmly within Clark University's liberal-arts tradition, with an emphasis on the science of designing software and hardware. Courses emphasize concepts and principles; at the same time, the program as a whole closely follows ACM guidelines for university computer science. The major provides preparation for a variety of career paths, both inside and outside the academic community. Two courses in computer programming and one course in discrete mathematics serve as general introductory courses. Four intermediate courses (core requirements) expose the fundamental principles of computer science. One year of calculus is required and should be completed as soon as possible, if at all possible by the end of the sophomore year. Beyond this, a series of

elective courses is offered in which applications and advanced topics are explored. Further information, including expanded course descriptions, can be found on the department's World Wide Web server at <http://mathcs.clarku.edu/>.

Declaring a Major

The department has a system of advising to assist students with their course selections. Department faculty are eager to help students select courses. A major must be declared no later than the second semester of the sophomore year; earlier declarations are encouraged. Students should choose an academic adviser from the department faculty as early as possible or at least by the time the major is declared.

(Entering students enrolled in first-year seminars in programs outside mathematics, computer science or the natural sciences are especially encouraged to make a prompt choice of an unofficial secondary adviser in the Computer Science Department, who will be able to supplement the advice offered by their primary adviser.)

Requirements for the Computer Science Major

Introductory Courses

These courses are prerequisites for the advanced courses and should be taken as soon as possible.

CSCI 101 (Computer Programming I)

CSCI 102 (Computer Programming II)

MATH 114 (Discrete Mathematics)

Calculus

A complete calculus sequence is required, and should be completed as soon as possible, if at all possible by the end of the sophomore year.

Calculus sequence (MATH 120-121-122, or MATH 124-125)

Core Courses

CSCI 140 Assembly Language and
Computer Organization

CSCI 160 Data Structures and Algorithms

CSCI 170 Analysis of Programming
Languages

CSCI 180 Automata Theory

Advanced Courses

Four courses in computer science at the 200 level, not including internships or reading courses except with departmental approval. (Total 13 or 14 courses depending on student's choice of calculus sequence.)

Suggested Program Sequence

It is important to begin the computer science program early. An ideal program sequence begins with CSCI 101 (Programming I) in the fall of the first year, followed by CSCI 102 (Programming II) and Mathematics 114 (Discrete Mathematics) in the spring semester. A calculus sequence (MATH 120-121-122 or MATH 124-125) should be taken starting in the first year if possible, and in no case later than the second year. The four core courses should be taken as soon as possible.

The three mathematics courses required for the computer science major are meant to ensure that all students will have the mathematical tools which are indispensable for the study of computer science. Mathematics 114 is a direct or indirect prerequisite for essentially all intermediate and advanced computer-science courses, and should be taken as early as possible by any student who may be interested in computer science. If it is not possible for a student to take both Mathematics 114 and Calculus during the first year, preference should be given to Mathematics 114.

Honors Program

A major who maintains at least a 3.2 average (4.0 scale) in courses required for the major may apply for the departmental honors program. A student's application in writing must be directed to a prospective honors adviser or the department chair by the end of the student's junior year. Honors may be achieved in one of two ways: (1) a unified four-course sequence as a senior (some parts of which may consist of directed readings) followed by a comprehensive examination; or (2) an honors project to be presented at an oral defense or at a department seminar. This project may be an

independent or joint research thesis, or it may be a programming project. Supporting course work may be required. Students interested in pursuing the honors program should consult their department adviser. The student registers for CSCI 299, Sec. 8, for course credit for an honors thesis. Upon satisfactory completion of the program, the department may recommend graduation with honors, high honors, or highest honors.

The Computer Science Minor

A minor in computer science consists of six courses: CSCI 101-102, Computer Programming I and II, and four other courses in Computer Science (although MATH 114 Discrete Mathematics may substitute for one), at least one of which is at the 200 level.

Here are some sample minors in computer science:

Software sequence: CSCI 101-102,
Mathematics 114, CSCI 160, 170, and 250.

Theory sequence: CSCI 101-102,
Mathematics 114, CSCI 160, 180, 270.

Courses

099 COMPUTERS IN OUR WORLD/LECTURE, LABORATORY

An introduction to computer technology with an emphasis on social implications where applicable. Lectures will survey topics such as history of computer development from number crunchers to information management systems, how computers work, networking protocols including the Internet and World Wide Web. Additionally, the course will explore data representation and programming; students will learn binary algebra and develop two or three short programs. A laboratory component will give students hands-on experience with software applications, which demonstrate the possibilities enabled by current computer technology. There are no prerequisites; no prior computer experience is necessary. Not applicable to the major requirements in computer science. Staff/Offered periodically.

101 COMPUTER PROGRAMMING I/LECTURE, LABORATORY

An introduction to computer programming using Java. The theme is the top-down approach to problem solving. Algorithms are developed for the solutions to stated problems, then translated into Java and tested on the computer. For the laboratory component, students are expected to write approximately seven programs throughout the course. Specific topics include decision making, logic design, iteration, arrays, text files, and records. Satisfies the formal analysis requirement. No prerequisites. This course is a prerequisite for most higher-numbered computer science courses. Mr. Chou, Mr.Green, Mr. Joyce, Staff/Offered every semester

102 COMPUTER PROGRAMMING II/LECTURE, LABORATORY

A continuation of CSCI 101, covering such topics as string manipulation, data files and their processing, collections, and dynamic data structures such as linked lists, stacks, queues, and binary trees. The usage and implementation of recursion also is discussed.

Approximately six programming projects are assigned as the laboratory component of the course. These projects entail the design and implementation of programs involving the topics mentioned above. Prerequisite: CSCI 101. Mr. Chou, Mr.Green/Offered every semester

120 THROUGH 129: SHORT COURSES IN PROGRAMMING LANGUAGES/LECTURE, LABORATORY

Short midsemester courses for 1/4 or 1/2 credit each. Each course will introduce a new programming language to students who already know at least one high-level programming language. Prerequisite: a one-semester college-level programming course. Offered as credit/no credit and do not fulfill any requirements towards the computer science major. Staff/Offered periodically

140 ASSEMBLY LANGUAGE AND COMPUTER ORGANIZATION/ LECTURE, LABORATORY

Covers fundamentals of assembly language programming such as data representation, the instruction set, addressing mode, macros, procedures, input and output facilities, assembler and linker, introduction to logic circuits, and the basic machine organization of conventional computers. The goal is to understand how a computer performs various tasks that are completely hidden from the user in a high-level language. For the laboratory component, students will write several programs in assembly language. Prerequisite: CSCI 102. Mr. Chou, Mr. Breecher/Offered every year

160 DATA STRUCTURES AND ALGORITHMS/LECTURE, DISCUSSION, LABORATORY

Deals with advanced data structures such as sets, trees, and graphs, together with the algorithms to manipulate them. Applications to searching and sorting are discussed. Topics include: analysis of algorithms, general trees, balanced trees, priority queues, hash tables, merge-sort, quick-sort, radix sorting and searching, and elementary graph algorithms. Involves a fourth-hour problem-solving session. Programming projects are assigned for the laboratory component. Prerequisite: CSCI 102 and Mathematics 114. Mr. Chou, Mr. Green/Offered every year

170 ANALYSIS OF PROGRAMMING LANGUAGES/LECTURE

Deals with the issues of the design and implementation of programming languages from both the syntactic and the semantic point of view. Topics include: the representation of rules of syntax, using context-free grammars, parsing, semantic constructs, control structures, implementation of procedures and parameters, implementation of recursion, and an introduction to the organization of compilers. A typical group term project may be to design and implement a compiler or interpreter for the actual implementation of some language. Prerequisites: CSCI 102 and Mathematics 114. Mr. Joyce, Mr. Green/Offered every year

180 AUTOMATA THEORY/LECTURE, DISCUSSION

Studies the abstract models of machines and languages recognized by them, and introduces the concept of computability. Begins with a review of sets, functions, and relations, then continues with finite automata and regular languages, pushdown automata and context-free grammars, grammar transformations and normal forms, and finally the mathematical model of modern computers: Turing machines and computable functions. Some examples of unsolvable problems, such as the halting problem, will be discussed. Involves a fourth-hour problem-solving session. Prerequisite: CSCI 102 and Mathematics 114. Mr. Chou, Mr. Green, Mr. Joyce/Offered every year

201 PROSEMINAR IN COMPUTER SCIENCE/SEMINAR

The presentation of topics in computer science by and for senior undergraduates. These presentations acquaint students with diverse subjects, introduce them to researching known topics, and give them practice in presenting material to their peers. Faculty members will also present some research topics. Possible areas the topics may be drawn from might include robotics, networking, NP complete problems, neural networks, expert systems, parallel algorithms. Prerequisites: CSCI 160 and CSCI 170. Staff/Offered periodically

210 ARTIFICIAL INTELLIGENCE/ LECTURE, LABORATORY

Focuses on the fundamental ideas of artificial intelligence and programming in Lisp. Topics included are knowledge representation schemes, problem representation through explicit models, search techniques, analogy and pattern recognition, natural language parsing and planning. Students implement the above ideas through computer programs written in Lisp. Language instruction is provided in Lisp (or Prolog), although no prior knowledge of these programming languages is assumed. Prerequisite: CSCI 160 Staff/Offered every year

212 NUMERICAL ANALYSIS AND SCIENTIFIC COMPUTING/LECTURE, LABORATORY

See Mathematics 212. Mr. Chou, Ms. Sternberg/Offered every other year.

213 ROBOTICS /LECTURE, LABORATORY

This course presents an introduction to robotics. In addition to algorithmic issues, the course will cover related engineering and system topics and discuss current research problems. Topics covered include hierarchical paradigms, biological foundations, robot actuators and sensors, sensing techniques, kinematics, and dynamics, control, localization, and motion planning. Students will get hands on experience through computer simulation or physical experiments with robot project component kits. Prerequisites: Data Structures and Algorithms (CSCI 160) and familiarity with calculus and matrix algebra (MATH 131). Students should be interested in geometric concepts and algorithms and have good programming skills. Ms. Han/Offered every other year

215 OPERATING SYSTEMS/ LECTURE, LABORATORY

Studies the structure, performance, and design of operating systems. Topics include concurrency, deadlocks, scheduling, and memory management. Various operating systems may be examined and compared. Students will design and implement parts of operating systems. Prerequisite: CSCI 160. Mr. Green/Offered every other year

220 DATABASE MANAGEMENT AND SYSTEMS DESIGN/LECTURE

An advanced course on the realities of database technology. Emphasizes the goals of database management: performance, data integrity, future compatibility, and versatility. The concept of the data model is examined and a specific database is discussed. Concentrates on database design and specification. Prerequisite: CSCI 160. Mr. Chou/Offered every other year

230 COMPILER DESIGN/LECTURE, LABORATORY

A continuation of CSCI 180 Automata Theory. It uses the automata and grammars introduced in CSCI 180 to design translators (compilers) for programming languages. Topics include lexical analysis, top-down parsing, bottom-up parsing, syntax-directed translation, type checking, run-time environment, code generation, and an introduction to code optimization. A typical term project is to write a compiler for a simple programming language such as a subset of C or Pascal. Prerequisites: CSCI 160 and CSCI 180. Mr. Chou, Mr. Green/Offered every other year

240 COMPUTER ARCHITECTURE/LECTURE

A study of the design of computers. Topics include the design of combinatorial and sequential circuits, design methodology of a basic computer, central processor organization, microprogramming, memory organization, input-output organization, and arithmetic processor design. As time permits, further topics, such as vector and parallel processing, are discussed. A functional, logical (theoretical) approach is adopted. Physics 219 Electronics Laboratory, is recommended so that students gain hands-on experience with computer chips. The science of design is stressed together with the existing machines. Prerequisite: CSCI 140. Mr. Breecher/Offered every other year

250 SOFTWARE ENGINEERING/SEMINAR

Students consider the life cycle of large software projects, beginning with the elicitation and definition of users' requirements, and continuing through software design, documentation, coding, testing and maintenance. Topics include: modularity, coupling, cohesion, transformational and transactional structures and testing strategies. Working in teams, students gain practical experience developing software to solve concrete problems. Prerequisites: CSCI 160 and CSCI 170. Staff/Offered periodically

270 THEORY OF COMPUTATION/LECTURE

Studies the nature and formal models of computation (by computers), its power and limitation (computability versus uncomputability), the computational complexity of various problems, and the applications in logic and computer science. Turing machines, general recursive functions, and other standard models of computation are introduced. Other aspects of recursion theory, such as unsolvable problems and recursively enumerable languages are introduced. We also address the more practical question, "What is an efficient program?" in an introduction to modern complexity theory. Prerequisite: CSCI 180. Mr. Chou, Mr. Green/ Offered every other year

280 COMPUTER NETWORKS/LECTURE

Provides an introduction to the theory and practice of the design of computer and communications networks. The TCP/IP Model will be used as the framework with the course progressing through the physical, data link, network and transport layers. Analysis of network topologies and protocols, including performance analysis, is treated. Current network types including local-area and wide-area networks are introduced, as are evolving network topologies. Laboratory exercises include the design and implementation of projects such as simulation of the network/transport layer functions, routing, congestion control, an Ethernet controller, applications using TCP/IP or remote procedure calls. There may be extensive network programming assignments. Prerequisites: CSCI 140 and CSCI 160. Mr. Breecher/ Offered every year

ECONOMICS

Department Faculty

Maurice D. Weinrobe, Ph.D. *chair: monetary economics, economics of population*
Sang-Hoo Bae, Ph.D.: *industrial organization, microeconomics, game theory*
John C. Brown, Ph.D.: *economic history, European economy*
Daniel M. Bernhofen, Ph.D.: *international trade, industrial organization, econometrics*
Myles Callan, Ph.D.: *macroeconomics, real-time data analysis, time series econometrics*
Jacqueline Geoghegan, Ph.D.: *environmental economics, econometrics.*
Wayne B. Gray, Ph.D.,: *labor economics, econometrics, environmental economics*
Robert C. Hsu, Ph.D.: *economic development, comparative economic systems, international economics*
Attiat F. Ott, Ph.D.: *public finance, health economics, macroeconomics*
Frank Puffer, Ph.D.: *regional economics, health economics*

Emeriti Faculty

Howard W. Nicholson, Ph.D.
Roger C. Van Tassel, Ph.D.
E.C.H. Veendorp, Ph.D.

Undergraduate Program

Economics offers a flexible yet consistent framework for understanding key issues facing the economy and society—from globalization of international trade and finance to global warming. The major and minor in economics offer students an opportunity to learn the key elements of this framework and provide them with ample opportunities to apply it to a wide range of key economic issues. The Ph.D. program enriches the intellectual community in economics with opportunities for undergraduates to get to know advanced students in economics and for students to take advanced courses in statistics and economic theory not typically available to undergraduate majors.

Since it first attempted to explain the growth and wealth of nations more than two hundred years ago, economics has evolved into a modern social science that combines a coherent analytical framework with careful analysis of information to understand how economies work and develop and the consequences of economic policies and policy change. It applies the basic logic of individual choice and market forces to explore the tradeoffs inherent in addressing many of the key concerns on today's agenda: ensuring rising living standards in developed and developing countries, assessing the impacts of international trade, and identifying the wisest use of scarce environmental resources, among many others.

The major in economics builds on the expertise the student develops in the first two semesters of courses. It combines a solid background in the core of economic analysis with a wide range of applied courses that investigate the most important fields of economics and many important topics. The capstone experience, honors program, internships, and study abroad offer opportunities for majors to acquire research experience, apply economics in government or business, and deepen their understanding of economic issues.

The economics major also provides skills that are highly valued in a number of careers and graduate programs. The economics major emphasizes developing skills of careful thinking and analysis in combination with the application of those skills in actual settings. Law schools welcome the background economics provides in logical thinking. Government agencies and graduate programs in public policy or economics appreciate the systematic approach to understanding the economy offered by economics. Business schools and businesses find the facility the economics major acquires in analytical thinking and quantitative methods of analysis attractive.

Requirements For The Major

The requirements for the major include 12 courses overall: five required core courses in quantitative methods and economic theory; five elective courses in economics; and two related courses in fields outside of economics. A course including a capstone experience must be taken during the senior year.

Upon declaring the major, students also choose an adviser from among the economics faculty. Students are encouraged to use their initial meetings with their adviser to develop a program that meets their interests and goals. For example, a student concerned about environmental change and developing countries may combine course work in Environmental Economics (ECON 157 or ECON 257) with Population Economics (ECON 247) and Economic Development (ECON 128 or ECON 228). Students planning on graduate work in economics should consult their adviser early on. Graduate work in economics demands strong mathematical skills, including calculus and other courses in math.

The Undergraduate Economics Handbook provides many detailed suggestions on how students can tailor their major to their interests and career goals including a worksheet for planning the program in the major.

Core Courses

The five core courses provide all students with a common language and a common set of skills that ensure the student is prepared for study of the subfields of economics in the 100- and 200-level elective courses. They also enhance the student's understanding of economic analysis. ECON 010 provides an introduction to the economic way of thinking using a comparative approach. First-year students may also elect to take a first-year seminar course (ECON 100) that provides an in-depth look into key economic issues such as international economic relations or population in place of ECON 010. Either of these courses is the prerequisite for all

100-level courses and ECON 011. ECON 011 provides students with an overview of the key analytical tools of economics and is the prerequisite for all 200-level courses.

Courses in intermediate microeconomics (ECON 205) and intermediate macroeconomics (ECON 206) deepen the major's understanding of the economic analysis of individual and firm choices, markets, and the economy as a whole. Course work in statistical analysis (ECON 160) acquaints students with how information can be used to confront hypotheses suggested by basic economic analysis. Majors must have a grade-point average of 2.0 in the core courses.

Economics Electives

The five economics electives and the two related courses provide the student with the opportunity to pursue more focused interests within the major. Courses at the 100-level, which are open to all students who have completed ECON 010 or ECON 100, generally provide students with an in-depth look at the institutions and policies important in understanding economies. Courses at the 200 level, which require prior completion of ECON 011, provide a more comprehensive introduction to the literature of economic analysis in an area. Economics majors are required to take at least three of their electives at the 200 level.

Elective offerings include such fields of economic inquiry as international trade and finance, economic development, public budgetary and tax policy, monetary economics, and labor as well as topical courses in areas such as health economics, comparative economics (Asia and Europe), environmental economics, the economics of population, economic history, and the economics of sport.

Students are encouraged to group their electives around their own particular interests. Brochures available from the department provide detailed suggestions on the appropriate

economics electives and related courses for students with interests in international economics, development and the environment.

Related Courses

Economics majors must also complete two courses that are offered outside of the economics department, yet are related to the goals of the economics major. Some courses will satisfy the related course requirement under all circumstances. They include math courses at the level of calculus or above, management courses in accounting, finance, management and information systems (MIS) and operations management, computer science courses, and some courses in economic geography.

Other courses can also meet this requirement provided they complement the program a student has developed. For example, many courses in international development would provide an important background for a student who has taken Economic Development (ECON 128 or ECON 228), or a student with an interest in government tax and budget policy may want to take additional courses in government. The departmental faculty adviser can provide suggestions for related courses of this type.

Capstone

Taken during the student's final year in the major, the course that fulfills the capstone requirement offers an opportunity for the student to draw upon the skills and background acquired during the previous years of study. The capstone courses allow students to acquire in-depth knowledge of a topic of interest using a combination of economic analysis and empirical research. The capstone course counts as one of the five economics electives.

There are three ways of meeting the capstone requirement:

- a) Participation in the honors program (see below)
- b) 200-level economics research course.
Currently, all 200-level courses include a capstone component.

c) Independent study course. For students unable to meet the capstone requirement through (a) or (b), arrangements can be made for individually directed research work.

Students must submit the capstone declaration form with the instructor's signature to the Economics Department when enrolling in a course that they have designated as their capstone.

The Honors Program

Economics majors with outstanding academic records (a GPA of 3.4 in economics courses, 3.0 overall) may be accepted by the department as candidates for departmental honors. For students to receive departmental honors, they must also successfully complete an honors thesis. Prospective candidates for honors should develop a proposal for the thesis and identify a faculty supervisor during the second semester of the junior year. During the fall of the senior year, the students will enroll in ECON 297, honors. The student then writes a thesis under the direction of a faculty supervisor. During the spring of the senior year the thesis is evaluated by the department for possible departmental honors.

Requirements For The Minor

Students majoring in another discipline often discover that a minor in economics can provide a background that can complement their major and allow them to explore an interest in economics. The minor requires a minimum of six courses in economics including ECON 010 and ECON 011. Of the remaining four courses, at least two of them must be at the 200 level. Only courses with a final grade of C– or better will be counted toward the minor.

Study Abroad And Internships

A number of study-abroad programs and internships offer important opportunities for students in economics. Each year, a select group of juniors in the economics major attend the prestigious London School of Economics

for two semesters of study. Many majors take advantage of study-abroad opportunities elsewhere as well. Economics majors receive major credit for participation in the London Internship program, which places students in government or business internships in London; the Washington Center program, which places students in internships designed to acquaint them with policy making at the federal level; and the Washington Semester program. Other internships can be arranged through the Clark Internship Office under ECON 298. They offer students an opportunity to apply economic analysis in governmental or business settings. Although they can be taken for Clark credit, they do not count towards the ten required courses in the major. Your faculty adviser can provide you with the departmental guidelines for internships in economics.

Graduate Program

Clark University offers a unique program of graduate study and research leading to the doctor of philosophy in economics. The economics faculty provides students with an excellent opportunity for qualified students to develop proficiency in economic theory, econometrics, and their chosen fields of specialization. The design of the Ph.D. program emphasizes that students acquire experience carrying out independent research. The collegial size of the program ensures students ample opportunities to work with faculty.

The requirements for the Ph.D. include a core of five courses in economic theory and three in mathematical economics and econometrics; qualifying examinations in microeconomic and macroeconomic theory; completion of two fields of the student's choice; completion of two elective courses; and the dissertation. Where appropriate, graduate students may elect to take a limited amount of work in related courses offered by other departments. At least two full academic years of graduate work or the equivalent in part-time work in residence at Clark are required. Some teaching

and research experience at Clark, or other such teaching and research as the department may regard as equivalent, is strongly encouraged.

Ph.D. students can satisfy the requirements for econometrics and mathematical economics by passing designated courses offered in the department, or in the case of prior preparation, by passing a test given by the department. The student meets the economic theory requirement by satisfactory completion of the theory courses ECON 300, 301, 302, 303, and 304, and by passing two preliminary examinations.

Fields of specialization and/or electives may be selected from among the following: open economy macroeconomics, public finance, industrial organization, international trade, economic development, applied econometrics, health economics, environmental economics, or one field selected from related subjects. At least two field courses are offered annually. Typically, two fields or one field and two electives are taken during the second year, and the remaining requirement is completed during the third year. Students are required to present at least one paper written to meet field requirements to the departmental seminar. Electives should be chosen to provide depth to the Ph.D. students background in economics or breadth needed to carry out dissertation research.

Preparation for writing the dissertation begins during the third year, when the student starts writing the dissertation prospectus. The prospectus lays out the intellectual motivation for the dissertation and the research plan designed to complete it. The dissertation must be an original contribution to knowledge that is based upon independent research, convincingly presented and acceptably written. The dissertation must be completed within five years of passage of the preliminary examinations. If it is not, the student must successfully retake the preliminary examinations in economic theory before defending the disserta-

tion. Under certain circumstances, published articles may be accepted by the department instead of a dissertation.

The student presents the completed dissertation prospectus at an informal conference with all graduate students and faculty invited to attend. After the presentation, the primary adviser, in consultation with the chair of the department, appoints the dissertation committee if the topic is judged feasible. Upon completion of the dissertation in a form acceptable to the committee, the candidate makes a copy of the dissertation available to the department, the faculty, and the graduate students for two weeks prior to the dissertation defense. The defense is presented at a seminar open to all faculty and graduate students in the department. Final approval of the dissertation is granted by the committee after consideration of any suggested changes or questions arising from the seminar. Students enrolled in the Ph.D. program may be awarded the M.A. degree upon satisfactory completion of a two-year residency and the preliminary exams. In the case of students who do not continue toward the Ph.D., the M.A. may be awarded upon satisfactory completion of twelve required courses. A student should discuss program plans with the graduate student adviser before registration day and secure approval of the course program.

Scholarship assistance for students admitted to the Ph.D. program is available. Full or partial tuition remission may be granted to particularly well-prepared students. In addition, several teaching assistantships are awarded, enabling graduate students to gain experience in undergraduate instruction. These cover remission of tuition and a cash stipend. Employment as a research assistant is also available for some well-qualified students.

Institute for Economic Studies

The Institute for Economic Studies was established in 1980 with an initial grant from the John M. Olin Foundation. The institute's main objectives are to research significant economic policy issues facing the nation and to disseminate the results of the research to a broad audience through conferences and publications.

The institute provides a framework within which international scholars engage in cooperative research and exchange of ideas. The institute's activities are supported through annual private grants. The director of the institute is Professor Attiat F. Ott.

Courses

010 ECONOMICS: A COMPARATIVE APPROACH/LECTURE, DISCUSSION

Introduces the vital contribution economics can make to systematic thought and understanding by analysis of important current policy issues. Rather than emphasizing economic theory, the course begins with a comparative analysis of issues in the social sciences that are of obvious and important concern. From a study of issues, the course proceeds to show how development and use of some basic economic concepts can aid materially in the analysis. Open to first-year students. Multiple sections. Staff/Offered every semester

011 PRINCIPLES OF ECONOMICS/LECTURE, DISCUSSION

Introduction to economic analysis. Develops a set of economic concepts used in the 200-level courses offered in the department. Elements of price and income theory are emphasized. Policy questions are treated both to reinforce concepts and to illustrate applicability of the analysis. Open to first-year students. Prerequisite: ECON 010. Staff/Offered every semester

100 FIRST-YEAR SEMINAR

The department of economics regularly offers a first-year seminar. The topic differs from year to year but recent offerings have included The Economics of Environmental Regulation;

World Population and Individual Well-Being; and The Global Economy. Econ 100 is a substitute of ECON 010, and it fulfills the comparative perspective. Staff/Offered annually

108 INTERNATIONAL ECONOMICS: TRADE AND FINANCE/LECTURE, DISCUSSION

Reviews the basic principles of international economics. Examines policy issues in international trade and foreign investment, and explores policy alternatives. Not a prerequisite for ECON 207 or 208, but may be taken in preparation for them. Prerequisite: ECON 010 or 100. Mr. Hsu/Offered every year.

113 MONETARY ECONOMICS: THEORY AND POLICY/LECTURE, DISCUSSION

Monetary economics investigates the structure of the financial system, the institutions and customs of that system, and the role of money in the economy. The macroeconomics of money and the role of the Federal Reserve (and other central banks) are studied. Prerequisite: ECON 010 or 100. Mr. Weinrobe/Offered every year

125 HEALTH ECONOMICS/LECTURE, DISCUSSION

Examines the economic processes and activities of health-care systems and institutions. Major issues including competition, role of governments, and insurance are among the topics that are investigated to assist students in understanding how economic considerations affect the delivery of care. Prerequisite: ECON 010 or 100. Mr. Puffer/Offered periodically

126 PUBLIC POLICY TOWARD BUSINESS/LECTURE, DISCUSSION

Examines the various types of industrial organization, the degrees of monopoly in competition, and the development of public policies that affect business. Among issues traced are the development of antimonopoly regulation, consumer protection, and public utilities. Business performance and government regulations are related to criteria from economic theory. Prerequisite: ECON 010 or 100. Staff/Offered periodically

128 ECONOMIC DEVELOPMENT/LECTURE, DISCUSSION

Covers same general topics as ECON 228, but requires less previous preparation in economics. Offered in alternate years with 228 (See Economics 228). Prerequisite: ECON 010 or 100. Mr. Hsu/Offered every other year

142 EUROPEAN ECONOMIC HISTORY/LECTURE, DISCUSSION

See Economics 242. Prerequisite: ECON 010 or 100. Mr. Brown/Offered periodically

143 AMERICAN ECONOMIC HISTORY/LECTURE, DISCUSSION

See Economics 243. This course is available as an historical perspective. Prerequisite: ECON 010 or 100. Mr. Brown/Offered periodically

157 THE ECONOMICS OF NATURAL RESOURCES AND THE ENVIRONMENT/LECTURE

A review of political economic problems associated with such natural resources as land, water, and energy goods, as well as a resource common to all of us, our natural environment. Topics include the assessment of environmental impacts within market-oriented economics, and the use of economics in policy designed to address environmental issues such as air pollution, global warming, biodiversity, and suburban sprawl. Prerequisite: ECON 010 or 100. Ms. Geoghegan/Offered periodically

160 INTRODUCTION TO STATISTICAL ANALYSIS/LECTURE, DISCUSSION

Examines basic concepts and techniques of statistical method in economic analysis: descriptive statistics, probability theory, sampling distributions, hypothesis testing, and simple and multiple regression. Staff/Offered every semester

176 COMPARATIVE ECONOMIC SYSTEMS/LECTURE, DISCUSSION

Examines the major varieties of developed market economies and of transitional and developing economies. Topics include Japan's industrial policy and business groups, Germany's social market economy and codeter-

mination, Sweden's welfare state and labor unions, economic reforms in China and Russia, and economic development in Korea. Prerequisite: ECON 010 or 100. Mr. Hsu/Offered every other year

177 JAPANESE AND CHINESE ECONOMIES/LECTURE, DISCUSSION

Surveys the Chinese and Japanese economies—their development, institutions, and policies. Topics include historical background, agricultural development, industrial organization and development, fiscal and monetary policies, employment and labor, Sino-Japanese relations, and relations with the United States. Prerequisite: ECON 010 or 100. Mr. Hsu/Offered every year

205 MICROECONOMIC THEORY/LECTURE, DISCUSSION

Describes and analyzes how a market-oriented economy functions in answering the five basic economic questions: (a) What commodities to produce? (b) How much of each to produce? (c) What productive techniques to use and how to provide incentives? (d) How to distribute the output among the various members of society? (e) What provision to make for the future? Interspersed with theory, the course contains frequent examples that demonstrate the use of microeconomics in solving problems faced by decision makers in both the private and public sectors. Prerequisite: ECON 011. Ms. Geoghegan, Mr. Gray, Mr. Bae/Offered every semester

206 MACROECONOMIC THEORY/LECTURE, DISCUSSION

Macroeconomics is one of the core elements of economics. The subject includes the study of the determinants and behavior of the aggregate economy, including income, employment and the price level. The economy is examined at a point in time (statics) as well as over time (dynamics). Prerequisite: ECON 011. Mr. Weinrobe, Mr. Callan, Ms. Ott/Offered every semester

207 INTERNATIONAL TRADE THEORY/LECTURE, DISCUSSION

Studies international trade theory and policy at the intermediate level. Examines the fundamentals of international trade theory: comparative advantage, gains from trade, neoclassical trade theory, trade and income distribution. Traditional and modern instruments of protectionism, arguments for and against free trade, and the role of international institutions are discussed. Prerequisite: ECON 011; ECON 205 is recommended. Mr. Bernhofen/Offered every year

208 INTERNATIONAL MONETARY THEORY/LECTURE, DISCUSSION

International macroeconomics at the intermediate level. The fundamentals of international finance are studied: operations of international currency markets; the concept of the balance of payments; fixed versus flexible exchange rate regimes. Analyzes macroeconomic policies under different exchange rate regimes; theories of exchange rate determination, and the working of different international monetary regimes. Prerequisite: ECON 011; 206 is recommended. Mr. Callan, Mr. Bernhofen/Offered periodically

215 GOVERNMENT FINANCE: BUDGET POLICY IN A COMPARATIVE SETTING/LECTURE, WORKSHOP

Develops concepts relevant to the study of government finance under alternative structures: federalism, unitary governments, and regime types: democratic/authoritarian. Analyzes topics such as the conflict between public interest and private interest, the size and growth of government, and the application of budget policy to achieve efficient allocation of resources and economic growth. The decision-making process of the government is examined using public choice (voters-bureaucrats) models. Prerequisite: ECON 011 or permission of instructor. Staff/Offered every other year

216 TAX AND DEBT FINANCE/LECTURE, WORKSHOP

Applies tools of economic analysis to the study of taxation and the public debt. Analyzes emerging issues in taxation such as the flat tax, consumption-based tax and the value-added tax. Concepts such as the trade-off between equity and efficiency, tax burden, tax competition and tax exporting are explained with reference to experiences of the United States and its trading partners. The equivalence of debt finance to tax finance is analyzed. The implication for growth in the public debt for the stability and performance of the U.S. economy is critically evaluated. Prerequisite: ECON 011 or permission of instructor. Staff/Offered every other year

222 LABOR/LECTURE, DISCUSSION

Applies the concepts of labor supply and labor demand in a basic model of labor markets. The model is used to analyze the results of the labor market: wages, employment, and unemployment. The analysis is modified to allow for market imperfections and nonmarket forces, including trade unions and the government. Further topics include wage discrimination and income inequality. Prerequisite: ECON 011. Mr. Gray/Offered every other year

225 HEALTH POLICY/LECTURE, DISCUSSION

Analyzes the role economics plays in shaping U.S. health policy. Among issues discussed are: health as a "priceless" commodity, the relationship between health and wealth, moral hazard of health outcomes in relation to medical intervention, the consequences of longevity for the cost of medical intervention and quality of life. Access to health care, especially lack of health insurance, is examined within alternative delivery systems: nationalized versus private-public mix. Future health policies for the United States are discussed in the context of intergenerational allocation of societal resources between the young and the old. Prerequisite: ECON 011 or permission of instructor. Mr. Puffer/Offered every other year

226 INDUSTRIAL ORGANIZATION/LECTURE, DISCUSSION

Takes the concepts learned in Intermediate Microeconomic Theory to the next level. More complicated theories of firm behavior are examined. By allowing issues such as product differentiation and imperfect knowledge to enter the analysis, students gain access to more realistic views of industrial structure and performance. Practical applications of these theories can then be examined through the use of specific industry studies. Prerequisite: ECON 011. Mr. Bae/Offered periodically

228 ECONOMIC DEVELOPMENT/LECTURE, DISCUSSION

Examines the major theories of economic development, the major problems confronting less developed countries, and the policies and strategies appropriate for economic development. Topics include agricultural development, income distribution, industrialization strategies, foreign aid and investment, population, labor, and employment. Offered in alternate years with ECON 128. Prerequisite: ECON 011. Mr. Hsu/ Offered every other year

242 EUROPEAN ECONOMIC HISTORY/LECTURE, DISCUSSION

Emphasizes that the economic history of Europe offers key lessons for understanding contemporary debates about development, economic performance, and globalization. After a close look at the preindustrial Malthusian economy, the course critically explores industrialization and its consequences in Great Britain, Germany, France and Russia. An investigation of economic integration before 1914, the Great Depression, and the post-1945 rebuilding of Europe offers insights into the causes and impacts of economic integration. Prerequisite: ECON 011. Mr. Brown/Offered every other year

243 AMERICAN ECONOMIC HISTORY/LECTURE, DISCUSSION

Offers a comprehensive survey of the development of the United States economy from a colonial backwater to a leading industrial

power. It emphasizes the use of economic reasoning to understand historical controversies such as the struggle over slavery, the causes of the Great Depression, discrimination in labor markets, and the rise of the American export economy. Fulfills historical perspective. Prerequisite: ECON 011. Mr. Brown/Offered every other year

244 EUROPEAN ECONOMY: EAST AND WEST/LECTURE, DISCUSSION

Offers a critical examination of European approaches to economic policy. In the West, these include the modern welfare state (widely available health care and housing), a more heavily regulated labor market, and moves toward a common market and currency. In the East, governments relied upon central planning and state ownership, even scoring some initial successes. Blending the tools of economic analysis with a close look at policies, this course will offer answers to these questions and an introduction to the economic challenges facing Western and Eastern Europe in the aftermath of the revolutions of 1989. Prerequisite: ECON 011. Mr. Brown/Offered every other year

245 THE HISTORY OF GLOBAL ECONOMY/LECTURE, DISCUSSION

Provides students with a comprehensive introduction to the history of the global economy. Using straightforward tools of economic analysis, we study the debate over the origins of the global economy, the growth of it before World War I, its destruction during the Great Depression, and its re-emergence during the past 50 years. The course focuses on the potential impacts of globalization on economic growth, the distribution of benefits (and costs), and the role played by colonialism and imperialism. Fulfills historical perspective. Prerequisites ECON 011. ECON 108 or ECON 208 recommended. Mr. Brown/Offered every other year

247 ECONOMICS OF POPULATION/LECTURE, DISCUSSION

The economics of population, economic demography, is the analysis of the economic forces that influence population and the demographic factors that affect traditional economic variables. The subject has strong ties to the economics of development, labor, health, and macroeconomics, as well as to other disciplines of the social sciences. Prerequisite: ECON 011. Mr. Weinrobe/Offered every other year

250 ECONOMICS OF SPORT/LECTURE, DISCUSSION

Applies economic analysis to the sports industry. While the primary focus is on professional team sports, individual and amateur sports are covered as well. Labor relations, antitrust law, public subsidization of sports facilities, discrimination, and sports broadcasting are among the topics that are covered from an economics perspective. Prerequisite: ECON 011. Mr. Puffer/Offered periodically

257 ENVIRONMENTAL AND NATURAL RESOURCE ECONOMICS

Examines some of the issues associated with the economics of natural resources and the environment. Topics discussed, at both the theoretical and empirical level, are chosen from the following: the theory and analysis of renewable and nonrenewable resources, resource scarcity and the economy, sustainable development, and the measurement of the benefits and costs of environmental regulation. Proper policies are discussed to encourage resource conservation, the problems of common property resources and the use of economic incentives to internalize environmental externalities. Prerequisite: ECON 011 (LAS 256) Ms. Geoghegan/Offered periodically

260/360 PROBABILITY AND STATISTICS/LECTURE

Introduces the fundamentals of probability and mathematical statistics using calculus, with an emphasis on the probabilistic foundations required to understand probability models, and the statistical methods upon which econometric models are based. Topics covered include the probability axioms, basic combinatorics,

random variables and their probability distributions, mathematical expectation and common families of probability distributions.

Prerequisite: Mathematics 131. Ms. Bernhofen/Offered every year

261/361 TOPICS IN STATISTICS/LECTURE

This course provides a detailed theoretical foundation for econometric analysis. The emphasis is on the development of fundamental statistical concepts of inference and hypothesis testing from a classical perspective using the tools of probability theory. Topics that we will investigate include sampling and sample distributions, graphical data analysis, point and interval estimation, hypothesis testing, and an introduction to Bayesian inference. Prerequisite: Mathematics 217 or ECON 260. Ms. Bernhofen/Offered periodically

265 ECONOMETRICS

This course deals with the application of statistical methods to economics. The objective is to expose students to: economic model building, testing the model statistically and applying the model to practical problems in forecasting and analysis. By understanding the theoretical and econometric basis of equations, students gain proficiency in formulating, estimating and interpreting testable relationships on their own. Prerequisite: ECON 011 and 160. Staff/Offered periodically

267 APPLIED ECONOMIC RESEARCH

This course introduces students to the tools of applied economic research in the context of a large research project, carried out as a collaborative effort. Students will be split into research teams for data collection and analysis. The course will cover different topics, depending on the research interest of the instructor. Prerequisite: ECON 160 and permission of the instructor. Mr. Gray, Mr. Brown/Offered periodically

271/371 INTRODUCTION TO MATHEMATICAL ECONOMICS/LECTURE, DISCUSSION

An introductory survey of the use of mathematical methods in economic analysis. Topics

include elements of linear algebra, optimization, and differentiated equations. Prerequisite: ECON 011 and permission of instructor. Offered for variable credit. Staff/Offered every year

273 FORECASTING/LECTURE, DISCUSSION

Investigates a number of forecasting techniques commonly used in economic analysis. Among the techniques covered are time series analysis, econometric models, simulation models, and expectations surveys. Prerequisites: ECON 011 and 160 or equivalent. Mr. Puffer, Mr. Callan/Offered periodically

277 URBAN ECONOMICS/LECTURE, DISCUSSION

Economic decisions made by firms and individuals regarding production, investment, and consumption activities inevitably involve a location decision. The implications of such location decisions for urban structure, urban and regional growth, and the existence of cities themselves are discussed. Topics include: location theory, interregional input/output tables, migration and regional growth. Prerequisite: ECON 011. Mr. Brown/Offered every year

297 HONORS

Students work on an individual basis with a faculty member on an intensive piece of research, culminating in an honors thesis. A student desiring departmental honors must register for one semester of ECON 297 in the fall of the senior year. Required for departmental honors. Prerequisite: permission of instructor. Staff/Offered every year

298 INTERNSHIP

Students spend a semester working full or part time outside the University as part of their academic experience. To qualify, the internship experience must significantly involve an extension, embodiment, or illustration of previous or concurrent, systematic academic work in economics. Offered for variable credit. This course does not count toward the economics major. Staff/Offered every year

299 INDEPENDENT STUDY

Offered for variable credit. Staff/Offered every year
The following courses are normally open only to graduate students:

300 INTRO GRAD ECONOMICS THEORY

Staff/Offered every year

301 MICROECONOMICS-CONSUMER/SEMINAR

Mr. Gray, Mr. Bae/Offered every other year

302 MICROECONOMICS-PRODUCER/SEMINAR

Mr. Bernhofen, Mr. Brown/Offered every other year

303 MACROECONOMICS/SEMINAR

Ms. Ott/Offered every year

304 MACROECONOMICS/SEMINAR

Mr. Callan/Offered every year

307 INTERNATIONAL ECONOMICS/SEMINAR

Mr. Bernhofen/Offered periodically

308 OPEN ECONOMY MACROECONOMICS

Mr. Callan/Offered periodically

315 PUBLIC FINANCE/SEMINAR

Staff/Offered periodically

325 HEALTH ECONOMICS/SEMINAR

Mr. Puffer/Offered periodically

326 INDUSTRIAL ORGANIZATION/SEMINAR

Mr. Bae/Offered periodically

328 ECONOMIC DEVELOPMENT/SEMINAR

Mr. Hsu/Offered periodically

357 ENVIRONMENTAL ECONOMICS/SEMINAR

Ms. Geoghegan/Offered periodically

360 PROBABILITY & STATISTICS

Ms. Bernhofen/Offered every year

361 TOPICS IN STATISTICS

Ms. Bernhofen/Offered periodically

365 BASIC ECONOMETRIC THEORY/LECTURE

Qualified undergraduates need the instructor's permission. Mr. Bernhofen/Offered every year

366 APPLIED ECONOMETRICS/ SEMINAR

Mr. Gray/Offered every other year

371 INTRO TO MATHEMATICAL ECON

Staff/Offered every year

EDUCATION

Department Faculty

Thomas Del Prete, Ed.D., chair; *director of the Jacob Hiatt Center: teacher education, history learning, professional-development schools, learning communities, spirituality and education*

John Ameer, Ed.D.: *secondary-school reform and curriculum: social, cultural, and political foundations of education*

Tom Berninghausen, Ph.D.: *literature and humanities learning*

S. Leslie Blatt, Ph.D.: *experimental physics, methods and practice in science education, science and society, environmental issues and their scientific dimensions*

Sharon Griffin, Ph.D.: *emotional development, cognitive development, mathematics education*

Sarah Michaels, Ph.D.: *relationships among language, discourse, culture and schooling; discourse analysis relating to classroom life and learning; teacher research*

Maureen Reddy, Ed.D.: *literacy, classroom discourse, children's literature, teacher research*

David S. Zern, Ph.D.: *moral development, values and religiosity; exploration and development of values education in schools; teacher research; analysis of learning and teaching*

Clinical Faculty

Holly Dolan-Rourke, M.Ed.

Fiona McDonnell, Ed.D.

Kenner Myers, M.S. in Education

Nathaniel C. Seale, M.Ed.

Marlene Shepard, M.A.

Emeriti Faculty

Helen J. Kenney, Ed.D.

William C. Kvaraceus, Ed.D.

Programs offered through the Education Department and Jacob Hiatt Center for Urban Education build on and extend students' work in the liberal arts. Programs accommodate both those students who are preparing to assume professional roles in education and those interested in learning about education for its own sake.

Program Overview

The Education Department, the Jacob Hiatt Center for Urban Education, and liberal-arts faculty work together in collaboration with the Worcester Public Schools to provide students with outstanding programs in urban-teacher education. These programs correspond to requirements for teacher licensure in the Commonwealth of Massachusetts.

Programs are designed to qualify both undergraduate and graduate students for the initial license at the elementary, middle, and secondary teaching levels. The initial license is the second level of licensure in Massachusetts and qualifies students to teach in Massachusetts and most other states.

The master's program in Urban Education and Teacher Research is designed to support the development of beginning urban teachers.

In addition, the department offers special programs in human services and school psychology (these programs do not lead to licensure or certification), as well as periodic undergraduate and graduate courses on selected topics in current education reform, teaching, curriculum and learning, and educational research.

Core Values and Commitments

- Preparing students to work with diverse groups of children in urban settings, with emphasis on understanding the role of language and culture in education;
- developing teachers as reflective learners and practitioners able to build learning communities with both children and adults, in part by introducing them to various "ways of knowing" in the liberal arts;
- developing teachers as researchers disposed and able to inquire into their own teaching practice and children's learning;
- collaborating among education faculty, liberal-arts faculty, researchers, teachers, and students in the professional-development school partnership between Clark and the Worcester Public Schools;

- exposing students to exemplary learning programs for children in the professional development schools established through the efforts of the Hiatt Center, Education Department and Worcester Public Schools.

Jacob Hiatt Center for Urban Education

The Jacob Hiatt Center for Urban Education is a partnership between Clark University and the Worcester Public Schools dedicated to rethinking the challenges and possibilities of contemporary urban schools. The center brings together teachers, administrators, researchers and students to foster innovation and scholarship in education.

Professional Development School Collaborative

Much of the learning in the teacher education programs takes place in a professional-development school. This is a school uniquely committed to both teacher learning and student learning. Our programs are fully integrated with a set of urban elementary, middle and secondary schools located in or near the south quadrant of Worcester, neighboring Clark. The faculty and administrators at these Worcester public schools work continuously with Clark faculty, undergraduate teacher-preparation students and master's students. Each school has a teacher coordinating this work full time, and each is an important site for education reform. Each site provides Clark students with an exceptional opportunity to develop as teachers, to understand curriculum and learning, and to support and assess diverse learners.

The professional-development school collaboration with the Worcester Public Schools is a large part of Clark's efforts to ensure high quality and distinction in its programs, and to contribute to education reform. The schools and the Jacob Hiatt Center for Urban Education are bound together in mutual support, commitment and service.

University Park Campus School

Clark and the Worcester Public Schools have collaborated on the development of the University Park Campus School (UPCS), an exemplary grade 7-12 neighborhood school and the centerpiece of a neighborhood renewal project. The school is infused with a strong sense of purpose, focusing on preparing its students for university-level academic work, plus a spirit of community fostered by the participation of families and Clark students and faculty in all of its programs. Students who graduate from this "school with a promise" are eligible to attend Clark tuition free. "Going to a university has been my one dream," said a University Park student. UPCS is one of the professional-development schools for middle- and secondary-level students, and it is the single-most important example of our effort to integrate school, university and community renewal.

Initial Teacher Licensure

In order to qualify for the initial teaching license in Massachusetts, a student must earn (or hold) a bachelor's degree in the arts and sciences. Undergraduates must complete a disciplinary or interdisciplinary major, and take courses that fulfill state standards in her/his instructional field(s). All students must take courses that meet the state professional standards for teachers, and must pass the Massachusetts Tests for Educator Licensure.

The Education Department and the Hiatt Center offer programs leading to the initial license at the elementary, middle, and secondary levels for both undergraduate and graduate students. Each program integrates course work with field experiences in professional-development schools under the guidance of education faculty and expert practitioners. Qualified undergraduates may complete a program for the initial license during a tuition-free fifth year as "BA/MA" participants in the Master of Arts in Teaching program (See Clark BA/MA program requirements)

Elementary (Grades 1-6) Initial Licensure Program

- EDUC 152 Complexities of Urban Schooling (required for undergraduates only)
- EDUC 260 Literacy Development
- EDUC 261 Human Development and Learning
- EDUC 282 Ways of Knowing in the Arts
- EDUC 283 Ways of Knowing in History/Social Sciences
- EDUC 284 Ways of Knowing in the Humanities
- EDUC 286 Ways of Knowing in the Physical and Natural Sciences
- EDUC 287 Ways of Knowing in Mathematics
- EDUC 288A Practicum: Elementary Teaching and Learning
- EDUC 288B Seminar in Elementary Teaching and Learning

Students seeking to qualify for the elementary-teaching license must take a range of courses in the arts and sciences that correspond to state subject matter knowledge requirements. This requirement may affect a student's choice of liberal-arts major. Students should contact the elementary program coordinator in the Education Department as early as possible to discuss this and other program requirements.

Middle School (Grades 5-8) Initial Licensure Program

(In the following areas: biology, English, general science, history, mathematics, and physics)

- EDUC 208 Literacy Across the Curriculum
- EDUC 152 Complexities of Urban Schooling
- EDUC 208 Literacy Across the Curriculum
- EDUC 261 Human Development and Learning or PSYC 150 Development in Child and Adolescent
- EDUC 270A Becoming an Effective Middle School Educator

One "Ways of Knowing" course corresponding to teaching field (see list above)

- EDUC 278A Practicum: Middle-School Teaching and Learning
- EDUC 278B Seminar in Middle-School Teaching and Learning

Secondary (Grades 8-12) Initial Licensure Program

(In biology, chemistry, English, French, history, mathematics, physics, Spanish and visual arts)

- EDUC 208 Literacy Across the Curriculum
- EDUC 261 Human Development and Learning or EDUC 190 Experience of Adolescence
- EDUC 270B Becoming an Effective Secondary-School Educator or ED 272
- EDUC 271 Cultures of American Schools or EDUC 152 Complexities of Urban Schooling
- EDUC 272 Focusing on a Discipline or ED 270B

One "Ways of Knowing" course corresponding to teaching field (see list above)

- EDUC 279A Practicum: Secondary-School Education
- EDUC 279B Seminar: Secondary-School Teaching and Learning

Master's in Urban Education and Teacher Research

The master's program in Urban Education and Teacher Research is designed for full-time students (including undergraduates who qualify for both the initial teaching license and the fifth year BA/MA program). This one year, 10 course program provides well-rounded experiences: core courses in the areas of culture, language, teaching and teaching research; extensive teaching responsibility in professional-development schools under the guidance of education faculty and expert practitioners; intensive summer institute courses with arts and sciences, education and K-12 teaching faculty; course work in a student's teaching field; a teacher research project and teaching portfolio. Teachers who wish to enroll as part-time students should consult with the Education Department.

Master's Required Courses

EDUC 311 Teaching and Learning

EDUC 327 Culture, Language, and Education

EDUC 367 Clinical Field Experience and Seminar I

EDUC 368 Clinical Field Experience and Seminar II

In addition, students normally take one summer institute course and two additional courses during the academic year, including courses corresponding to their subject matter field. Part-time students who are already fully licensed take additional course work in lieu of field experience. All of the courses for full- or part-time students must be determined in consultation with the education chair or the program coordinator.

Master of Arts in Teaching

The Master of Arts in Teaching (M.A.T.) program is designed for full-time students (including undergraduates who qualify for the fifth-year B.A./M.A. program) seeking the initial teaching license at either the elementary, middle or secondary levels. It begins in spring/summer and extends through the following academic year. Students enter as part of a cohort team that is guided through the program by university and school mentors. They are placed with a teacher mentor in one of the Hiatt Center professional-development schools at the beginning of the academic year, and take the equivalent of ten courses, including the teaching practicum, depending on their prior course work and planned teaching level.

M.A.T. Required Courses

EDUC 311 Teaching and Learning

EDUC 326A Ways of Knowing Seminar

EDUC 361 Human Development and Learning

A Curriculum and Knowing summer institute in the arts, humanities, mathematics, physical and natural sciences or history/social sciences

Ways of Knowing courses in the arts, humanities, history, mathematics or physical and natural sciences, depending on the student's teaching field

Practicum in elementary-, middle- or high-school teaching

Seminar in elementary-, middle- or high-school teaching

EDUC 360 Literacy Development (elementary students)

EDUC 308 Literacy Across the Curriculum (middle/secondary students)

Each middle- and secondary-level student takes an additional course corresponding to her/his teaching field, and/or courses focused on teaching at the middle or secondary level.

Special Programs

Human Services Program

This four-course sequence is designed for students interested in pursuing a career and/or graduate study in education and the helping professions. Students will have course work and field experiences dealing with diverse groups including children, families and the aged in settings, which include schools, the court system, mental-health agencies and institutions. Students will acquire skills through a balance of study and applied field work. Work in the Worcester area will serve to integrate material from the sequence.

Students receive an official transcript notation documenting the completion of this program.

EDUC 155 Education and Social Policy

EDUC 194 Field Experience I

EDUC 195 Field Experience II

EDUC 269 The Skilled Helper

School Psychology Program

This four-unit sequence provides intensive first-level training for students in the junior and senior years considering advanced graduate work in school psychology and related professional fields. Students are required to complete a two-semester placement for 10 hours a week under the supervision of a school counselor,

social worker, or psychologist. Students receive an official transcript notation documenting the completion of this program.

EDUC 266 Analysis of Individual Ability and Style

EDUC 268 Section 1 Psychoeducational Methods Semester I

EDUC 268 Section 2 Psychoeducational Methods Semester II

Courses

021 LITERACY, LEARNING, WRITING/LECTURE, DISCUSSION

See English 021. Ms. Geller/Offered every other year

105 NATURE AND BASIS OF MORALITY/FIRST-YEAR SEMINAR

This seminar will examine a variety of meanings for, and influences on, morality. Influences considered will include the family, schools, religion, peers, and the individual him/herself. In addition to intensive consideration of a diverse set of primary source readings in both behavioral sciences and in religious writings (the latter to a lesser extent), students will analyze answers to questionnaires they and previous classes have collected on the subject, and they will use those analyses in a systemic way to test their own and others' hypotheses. Past experience with the course suggests strongly, albeit somewhat unsystematically, that tolerance and appreciation by the students of both complexity and even ambiguity helps to foster a better educational experience for both students and faculty. Fulfills the values perspective. Mr. Zern/Offered every year

112 TRANSFORMATIVE SCHOOLING: DOCUMENTARY VIDEO FOR SOCIAL CHANGE/FIRST-YEAR SEMINAR

This is a field-based and inquiry-oriented seminar, an apprenticeship in documentary filmmaking as well as in school and community research and advocacy for social change. The course involves instruction in the basics of video production (using state-of-the-art digital cameras) and seminar members partner with

new and experienced teachers in inner-city public schools. We work with them as video assistants and also develop our own films about the challenges and possibilities of urban school reform. In addition to hands-on activity, there is serious attention to reading in the field of ethnographic research, education reform, and community institutions that support youth development. Moreover, seminar members get involved in grassroots organizing and soliciting input from the community, as well as ongoing critique of their planning documents, filmed footage and written companion texts. We thus integrate field work with theory and reflective critique. A final project for this seminar will be completed in the spring semester. Fulfills the values perspective and is recommended for all communication and culture majors.

Ms. Michaels/Offered every year

152 COMPLEXITIES OF URBAN SCHOOLING/LECTURE, DISCUSSION

Addresses the social and academic questions that surround urban education using linguistic, sociological and psychological perspectives. Through lecture, discussion and field work, students will explore challenges faced by educators. For undergraduate students in the initial teacher-licensure programs. Mr. Ameer/Offered every year

155 EDUCATION AND SOCIAL POLICY/LECTURE, DISCUSSION

Examines social problems, social policy, and education. Conceptual tools for the analysis of social policies are used. Examinations of existing programs and social agencies enable students to understand agency functions, client population, and the relationship between the individual-agency and the larger social-service network. Emphasis is placed on social problems and social solutions, linking individuals and external primary groups with societal resource systems, and the impact of social-policy change on individuals and institutions. Mr. Seale/Offered every year

190 THE EXPERIENCE OF ADOLESCENCE/LECTURE, DISCUSSION

Explores adolescent development through theory and research drawn from the behavioral and social sciences as well as fiction. Students study education during the adolescent years. Special social and interpersonal problems and issues confronting today's adolescent are considered, as are relevant teaching and learning theories. Students apply the course material to both teaching and learning in a series of descriptive and analytic reports. Mr. Zern/
Offered every year

194-195 FIELD EXPERIENCE: SPECIAL EDUCATION AND HUMAN SERVICES/DISCUSSION, FIELD PLACEMENT

Provide direct, supervised experience within educational and human-services agencies. Placements are based upon students' experience, goals, and academic backgrounds. Placement possibilities include schools, mental-health centers, institutions, the courts, substance-abuse centers, crisis agencies, and group homes. A weekly seminar provides the opportunity for students to analyze their field-work experience. Special note: These courses may be taken as a full-year, two-course sequence (Education 194 and 195) or as a single course either semester (Education 194). Mr. Seale/ Offered every year

208 LITERACY ACROSS THE CURRICULUM/ LECTURE, DISCUSSION, SEMINAR, FIELD PLACEMENT

Designed for students teaching at both the middle and secondary levels. Focuses on literacy issues affecting learning across all curriculum areas, as well as the particular reading-writing and discourse issues which affect learning in different disciplines. Field work will enable students to try various instructional strategies and assessment practices. Staff/
Offered periodically

252 YOUNG CHILDREN AND THE ARTS/LECTURE, DISCUSSION, STUDIO

The development of children's abilities to express themselves through varied symbolic forms is examined. Students express themselves using different media in the studio.

Classroom instructional at the early-childhood and elementary levels are explored. No prerequisites. Ms. Fisher/Offered periodically

254 DISCOVERING PHYSICS/LABORATORY

See Physics 020. Education 254 is open to education graduate students only. Undergraduates take Physics 020. Mr. Blatt, Mr. H. Gould, Mr. M. Gould/Offered every year

260 LITERACY DEVELOPMENT/LECTURE, DISCUSSION, SEMINAR, FIELD PLACEMENT

An overview of the development of reading, writing, and literacy-related oral language abilities from the preschool years through high school. Links between oral and written skills and between reading and writing are examined. Special attention will be given to the teaching of reading and writing in ways that support greater student engagement. Field work in schools will enable students to try out various instructional approaches. Ms. Reddy/
Offered every year

261 HUMAN DEVELOPMENT AND LEARNING/LECTURE, DISCUSSION

Introduces students to central and evolving understandings of human development and their implications for learning and pre-K through 12 schooling. Particular emphasis will be given to cognitive and sociocultural theories of learning and development. Ms. Griffin/
Offered every year

265 EMOTIONAL DEVELOPMENT/SEMINAR

Examines what emotions are and how they develop from birth to adulthood. Emphasis is placed on emotional development during childhood; on the ways emotions are shaped by cognitive, social, and biological factors; and on the ways emotions shape learning and behavior. Ms. Griffin/Offered periodically

266 ANALYSIS OF INDIVIDUAL ABILITY AND STYLE/LECTURE, DISCUSSION, PRACTICUM

Uses techniques to understand the individual as a whole. The theory of individual assessment, some tools for assessment, and the analysis of assessment data will be covered. Focus is placed on understanding, administering, and

interpreting both traditional and alternative assessment tools, including measures of cognitive ability, scholastic achievement, and personality. Students are required to administer assessment procedures and analyze case histories. Mr. Zern/Offered every year

267 ROLE OF VALUES IN EDUCATION/LECTURE

Explores the roles values play in the educating process. A classification of values will be developed, followed by a variety of models to understand how values develop in a society. Selected descriptive, empirical, and theoretical analyses will be considered to understand the impact values have on other behaviors. Students will develop and explore the interaction of values and education. Mr. Zern/Offered periodically

268 SEC. 1 & 2 PSYCHOEDUCATIONAL PRACTICUM AND SEMINAR/SEMINAR, FIELD PLACEMENT

Provides a two-semester placement, eight to 10 hours a week, with the pupil personnel department of a public-school system. A school psychologist and/or counselor will function as an ongoing supervisor. Activities include experience in conducting and interpreting psychoeducational assessments, obtaining social and developmental-history information through home visits, and observing and participating in the development of individualized educational plans as part of the team evaluation process. Mr. Seale/Offered every year

269 THE SKILLED HELPER/LECTURE, DISCUSSION, PRACTICUM

Designed for the development of the helping professional. Emphasis is placed on dynamics of the helping relationship and basic interviewing skills. Class exercises are used to facilitate skill development. Students who are not concurrently taking a field course are placed in a human-service agency one-half day per week. Mr. Seale/Offered every year

270A BECOMING AN EFFECTIVE MIDDLE-SCHOOL EDUCATOR/LECTURE, DISCUSSION, FIELD EXPERIENCE SEMINARS

Takes place at the Sullivan Middle Professional Development School under the direction of Clark education faculty and the Sullivan professional-development school coordinator. Grounded in an understanding of the developmental characteristics and needs of middle school-age students, it enables students to understand and develop competency in various practices—such as cooperative learning (including “complex instruction”) and reciprocal teaching—that engage students of diverse backgrounds in active learning. Mr. Del Prete/Offered periodically

270B BECOMING AN EFFECTIVE SECONDARY EDUCATOR/LECTURE, DISCUSSION, FIELD EXPERIENCE

Investigates the teaching process as a dynamic, complex human endeavor requiring the mastery of a variety of skills and the acquisition of a specific knowledge base. Mr. McDermott/Offered every year

271 CULTURES OF AMERICAN SCHOOLS/LECTURE, DISCUSSION, SCHOOL VISITS

This course will examine the nature and make-up of the cultures surrounding and composing American schools from a variety of points of view in order to better understand the nature of schooling in America. A field-work component is required and students will read from a variety of social-science sources, including science fiction and Supreme Court decisions. Mr. Zern/Offered every year

272 FOCUSING ON A DISCIPLINE IN THE SECONDARY SCHOOL/LECTURE, DISCUSSION, FIELD EXPERIENCE

Investigates the teaching process by direct observation of and interaction with practitioners in a secondary school. Students will acquaint themselves with a high school to acquire a sense of the community make-up. Students will observe and work with teachers in their subject area and will volunteer to aid in class, correcting papers, labs, tutoring and preparing worksheets. Students will also teach one class. Ms. Rodrigues/Offered every year

273 SCIENCE AND SOCIETY

Deals with the construction of knowledge and authority in the physical and biological sciences. Processes of change in science are studied—how science is situated in history, the mutual influences between science and culture, and characteristic forms of thinking and practice in different branches of science (primarily physics and biology), as well as how these compare to other human endeavors. Themes from the philosophy, history, and the sociology of science will be integrated, as well as science and technology studies. The nature of scientific literacy and issues germane to the teaching and learning of science in schools will be studied. Mr. Blatt/Offered periodically

278A PRACTICUM: MIDDLE-SCHOOL TEACHING/LEARNING

Involves at least 300 hours of teaching/learning experience at a professional-development school. Students will be supervised by education faculty and/or professional-development school teachers. Mr. Del Prete/Offered every year

278B SEMINAR: MIDDLE-SCHOOL TEACHING/LEARNING

The aim of this field-based seminar is to foster reflective practice, and to deepen understanding of how to engage, support, sustain, and assess the learning of diverse students. Students will conduct rounds and develop and present a portfolio of their work, which meets Massachusetts curriculum and teaching guidelines. Mr. Del Prete/Offered every year

279A PRACTICUM: SECONDARY EDUCATION

The culminating experience for the secondary initial-licensure candidate. Students complete at least 300 hours of field work with corresponding seminars and conferences. Staff/Offered every year

279B SEMINAR: SECONDARY-SCHOOL TEACHING & LEARNING

See 278B. Mr. Del Prete/Offered every year

Ways of Knowing Courses

Education and liberal-arts faculty at Clark sponsor a set of interrelated courses organized around the theme “Ways of Knowing.” Each course in the series deals with the construction of knowledge in individual development, academic disciplines, schools, and the society at large. Each course also focuses on a few fundamental themes or “big ideas” in the area, giving students a good grasp of what an important piece of content looks like in each domain. Courses look at leading ideas through different perspectives, including: the nature of knowledge in the area; the historical development of this knowledge; social and cultural ramifications; ways of working, thinking and using language in the area; comparison to other ways of knowing; and ways of learning and teaching in the area. Each course involves traditional in-classroom work, as well as observation, activities, and research in the field, either in classrooms or other learning settings. Co-taught by faculty from a variety of areas, as well as by master teachers from the Clark-Worcester Public Schools Professional Development School Collaborative.

282 WAYS OF KNOWING IN THE ARTS/LECTURE, DISCUSSION, FIELD PLACEMENT

Staff/Offered every year

283 WAYS OF KNOWING IN HISTORY AND THE SOCIAL SCIENCES/LECTURE, DISCUSSION, FIELD PLACEMENT

Staff/Offered every year

284 WAYS OF KNOWING IN THE HUMANITIES/LECTURE, DISCUSSION, FIELD PLACEMENT

Staff/Offered every year

286 WAYS OF KNOWING IN THE PHYSICAL AND NATURAL SCIENCES/LECTURE, DISCUSSION, FIELD PLACEMENT

Staff/Offered every year

287 WAYS OF KNOWING IN MATHEMATICS/LECTURE, DISCUSSION, FIELD PLACEMENT

Staff/Offered every year

**288A PRACTICUM: ELEMENTARY
TEACHING/LEARNING**

Involves at least 300 hours of teaching/learning experience at a professional-development school. Students will be supervised by education faculty and/or professional-development school teachers. Staff/Offered every year

**288B SEMINAR: ELEMENTARY
TEACHING/LEARNING**

The aim of this field-based seminar is to foster reflective practice and deepen understanding of how to engage, support, sustain, and assess the learning of diverse students. Students will conduct rounds and develop and present a portfolio of their work which meets Massachusetts curriculum and teaching guidelines. Staff/Offered every year

**299 SEC. 1 DIRECTED READINGS —
UNDERGRADUATE**

Independent study for qualified students on a selected topic. Permission of instructor required. Offered for variable credit. Staff/Offered every year

**299 SEC. 2 DIRECTED RESEARCH —
UNDERGRADUATE**

Staff/Offered every year

299 SEC. 4 FIELD PROJECT — UNDERGRADUATE

Provides individualized and extended experiences in a wide variety of educational and human-service agencies and institutions. Supervision is provided by the University and field-agency personnel. Combines related seminars, conferences, and readings as a basis for critical analysis of the experiences within the context of applied theory and practice. Offered for variable credit. Staff/Offered every year

304 TEACHING AS RESEARCH SEMINAR I

Brings together urban-school teachers (at the elementary, middle, and secondary level) with graduate students and faculty involved in university-based educational research. Focuses on qualitative, sociolinguistic research in classrooms, emphasizing the study of talk and texts as a vehicle for: better understanding students' learning, developing systematic techniques for

describing and critiquing classroom activities, and supporting effective learning among a socioculturally diverse population of students. Participants meet in small, facilitated groups to carry out qualitative research in urban classrooms and develop forums through which their work can be disseminated to a wider community of teachers and researchers. Staff/Offered every year

305 TEACHING AS RESEARCH SEMINAR II

See Education 304.

**306 CREATING LITERACY ENVIRONMENTS IN
ELEMENTARY SCHOOLS/SEMINAR**

Reviews recent studies reporting efforts to establish classrooms with varied opportunities for children to use language and literacy. Implications of this research for instruction are considered, and classroom practice is examined. Teams of students (e.g., a classroom teacher and a full-time graduate student, or two classroom teachers) identify and examine issues related to language and literacy use in classroom practice. Some students try novel methods and examine the effects of these innovations. Staff/Offered periodically

**308 LITERACY ACROSS THE
CURRICULUM/LECTURE, DISCUSSION, SEMINAR,
FIELD PLACEMENT**

See Education 208

**311 TEACHING AND LEARNING/ SEMINAR,
DISCUSSION**

Challenges the theory that there is one best way of understanding that students must learn according to that one way, and that their capacity to learn ought to be judged accordingly. Explores many adequate pathways for developing knowledge and emphasizes that teachers who acknowledge and support different pathways help make learning more accessible for students. This premise and its implications for teaching, curriculum, assessment, the formation of learning communities for diverse groups of students, and the role of the teacher in enabling students to actively construct knowledge are explored. Mr. Del Prete/Offered every year

313 STUDIES IN MIDDLE-SCHOOL TEACHING AND CURRICULUM/SEMINAR, DISCUSSION

Mr. Del Prete/Offered periodically

314 SELECTED TOPICS IN CHILDREN'S LITERATURE/SEMINAR, DISCUSSION

This course will immerse students in reading and writing about chapter books written for children and young adults. We will read as a class one to two books per week depending on length. Additional reading will be required for a class presentation and also for the final project. The bulk of the reading will be drawn from the Newbury Medal- and honor-award winners. This course will focus on reading, discussions and writing about children's/young adults' literature *as literature* rather than issues of teach-ability of age appropriateness.

Mr. Berninghausen/Offered periodically

324 BUILDING CONCEPTUAL BRIDGES/LECTURE, SEMINAR

Ms. Griffin/Offered periodically

325 RECENT THEORETICAL ADVANCES IN INTELLECTUAL DEVELOPMENT AND THEIR IMPLICATIONS FOR EDUCATION: A CASE STUDY FROM THE DOMAIN OF MATHEMATICS/LECTURE, SEMINAR

Studies contemporary theories in the field of intellectual development, their application to the domain of mathematical reasoning, and the general intellectual tradition (empiricist, rationalist, sociohistoric) and interpretive frameworks within which this work has been conducted.

The relevance of this work for understanding education in the United States today and in suggesting directions for its improvement will also be discussed. Ms. Griffin/Offered periodically

326A WAYS OF KNOWING SEMINAR

This yearlong seminar is designed to support M.A.T. students in developing an understanding of what it means to teach according to the ways of thinking, inquiring, writing and performing represented by each academic discipline in the context of diverse urban learning communities

326B WAYS OF KNOWING SEMINAR

This seminar engages M.A. students in deepening and demonstrating their understanding of what it means to teach the academic disciplines in the context of diverse urban learning communities.

327 CULTURE, LANGUAGE, AND EDUCATION

Graduate-level course dealing with theories and practices relevant to teaching and learning within a sociocultural perspective. Questions about language and cognition, multicultural and social diversity in the classroom, curricular and pedagogical theories and practices, language and literacy development, bilingual education, access and equity, learning across the life span, and the politics of education are discussed. In all areas, analysis of language and communication is used as a key tool for critical understanding. Staff/Offered every year

343 ANALYSIS OF THE RESEARCH PROCESS/ LECTURE, DISCUSSION

Focuses on understanding the structure and intent of a research report. Careful analysis of existing educational research is explored. Sources are considered in terms of particular elements in their overall structure, including hypothesis formation, operationalization of major terms, research design, etc. Mr. Zern/Offered periodically

348 STATISTICS IN EDUCATION/ LECTURE, DISCUSSION

Mr. Zern/Offered periodically

352 YOUNG CHILDREN AND THE ARTS

See Education 252.

360 LITERACY DEVELOPMENT/LECTURE, DISCUSSION, SEMINAR

See Education 260.

361 HUMAN DEVELOPMENT AND LEARNING

See Education 261.

362 MATH AND/OR EMOTION RESEARCH/ SEMINAR

Ms. Griffin/Offered periodically

363 COGNITION AND INSTRUCTION/SEMINAR

Students will investigate the conceptual networks children construct for mathematical con-

cepts, the instructional principles that underlie effective instruction, and the variety of methods that can be used to assess children's learning and development. Each student will conduct an independent research study on a topic of interest. Ms. Griffin/Offered periodically

364 KNOWLEDGE, DEVELOPMENT AND INSTRUCTION/LECTURE, DISCUSSION, CLASS EXERCISES

See Education 264.

367 SEC. 1 CLINICAL EXPERIENCE AND SEMINAR I (ELEMENTARY)

367 SEC. 2 CLINICAL EXPERIENCE AND SEMINAR I (MIDDLE SCHOOL)

367 SEC. 3 CLINICAL EXPERIENCE AND SEMINAR I (SECONDARY)

Integrates at least 200 hours of focused field work with group professional-development activities such as "rounds" and seminar discussion. Students will be mentored by education faculty and/or professional-development school teachers as they broaden and deepen their understanding of particular approaches to curriculum (consistent with local, state, and national curriculum frameworks) and develop expertise in teaching practices (e.g., fostering and assessing literacy development) that engage groups of children, including children with special needs, in active and developmentally appropriate learning. This experience promotes students' capacity to build and participate in a professional learning community reflecting on teaching, children's learning, schooling and education. For master's students seeking standard teaching certification. Mr. Del Prete/ Offered every year

368 SEC. 1 CLINICAL EXPERIENCE AND SEMINAR II (ELEMENTARY)

368 SEC. 2 CLINICAL EXPERIENCE AND SEMINAR II (MIDDLE)

368 SEC. 3 CLINICAL EXPERIENCE AND SEMINAR II (SECONDARY)

Integrates at least 350 hours of field work with group professional-development activities such as "rounds," seminar discussion, and teacher research. Students will be mentored by educa-

tion faculty and/or professional-development school teachers as they develop their teaching practice and understanding of children's learning. Particular emphasis will be placed on ways to develop and support children as active thinkers, on providing multiple paths of learning for children in keeping with diverse needs and ways of knowing, and on creating and sustaining a responsive and responsible learning community. Students will frame and conduct a teacher research project to build understanding of some aspect of the teaching-learning process. For master's students seeking standard certification. Mr. Del Prete/Offered every year

370A BECOMING AN EFFECTIVE MIDDLE-SCHOOL EDUCATOR/LECTURE, DISCUSSION

See Education 270A.

370B BECOMING AN EFFECTIVE SECONDARY EDUCATOR/LECTURE, DISCUSSION

See Education 270B.

371 CULTURES OF AMERICAN SCHOOLS/LECTURE, DISCUSSION, SCHOOL VISITS

See Education 271.

372 FOCUSING ON A DISCIPLINE IN THE SECONDARY SCHOOL/LECTURE, DISCUSSION, FIELD EXPERIENCE

See Education 272.

373 SCIENCE AND SOCIETY

See Education 273.

377 FACILITATING TEACHER RESEARCH: ETHNOGRAPHIC AND SOCIOLINGUISTIC METHODS

Provides theoretical, methodological and applied research training to classroom teachers and graduate student/researchers interested in facilitating teacher research. Readings will include text: 1) about teacher research; 2) by teacher researchers; 3) about theoretical and empirical work on group discussion and the social formation of mind. In addition, participants will be involved in ongoing data collection and analysis of existing teacher research groups. Thus the forum will develop practical skills in group leadership as well as research skills in documenting and analyzing teacher research. This is an advanced seminar for peo-

ple who have already participated in teacher research and/or facilitating teacher-research groups. Permission of the instructor is required. Ms. Michaels/Offered periodically

378A PRACTICUM: MIDDLE-SCHOOL TEACHING/LEARNING

Involves at least 300 hours of teaching/learning experience at a professional-development school. Students will be supervised by education faculty and/or professional-development school teachers. Mr. Del Prete/Offered every year

378B SEMINAR: MIDDLE-SCHOOL TEACHING/LEARNING

The aim of this field-based seminar is to foster reflective practice, and to deepen understanding of how to engage, support, sustain, and assess the learning of diverse students. Students will conduct rounds and develop and present a portfolio of their work, which meets Massachusetts curriculum and teaching guidelines. Mr. Del Prete/Offered every year.

379A PRACTICUM: SECONDARY EDUCATION

See Education 278A.

379B SEMINAR: SECONDARY-SCHOOL TEACHING AND LEARNING

See Education 278B.

382 WAYS OF KNOWING IN THE ARTS

See Education 282.

383 WAYS OF KNOWING IN HISTORY/SOCIAL SCIENCES

See Education 283.

384 WAYS OF KNOWING IN THE HUMANITIES

See Education 284.

386 WAYS OF KNOWING IN THE PHYSICAL AND NATURAL SCIENCES

See Education 286.

387 WAYS OF KNOWING IN MATHEMATICS

See Education 287.

388A GRADUATE PRACTICUM: ELEMENTARY TEACHING/LEARNING

See Education 288A.

388B GRADUATE SEMINAR: ELEMENTARY TEACHING/LEARNING

See Education 288B.

391 THESIS RESEARCH

Individual research related to the doctoral dissertation. Students meet with members of their dissertation committee for assistance with their dissertation study. Advising conferences are scheduled as needed by the individual student with committee members. The chair of the dissertation committee coordinates the advising process. Offered for variable credit to be determined by the dissertation chair. Staff/Offered every year

399 SEC. 1 DIRECTED READINGS — GRADUATE

Independent critical analysis of literature related to individual research. Offered for variable credit. Staff/Offered every year

399 SEC. 2 DIRECTED RESEARCH — GRADUATE

Individual research with direction from an instructor. Offered for variable credit. Staff/Offered every year

ENGINEERING

Program Committee

Charles C. Agosta, Ph.D., *committee chair: physics*

Lee Rudolph, Ph.D.: *mathematics, computer science*

Alan A. Jones, Ph.D.: *chemistry*

The Undergraduate 3/2 Engineering Program

Students interested in 3/2 Engineering must contact the committee chair, Charles Agosta (phone: 508-793-7736, email: cagosta@clarku.edu) before they sign up for classes in their first year.

The 3/2 engineering program at Clark University is a five-year program offered in conjunction with several affiliated schools. Currently these schools are Columbia University, Washington University, and Worcester Polytechnic Institute. Students enrolled in this program complete three years in residence at Clark followed by two additional years at one of the engineering schools. Students completing the program receive a

B.A. degree from Clark and a B.S. degree in engineering from the affiliated school.

Information about the 3/2 Program can be found at the department's Web site, <http://physics.clarku.edu>.

At Clark, students major in a field that strongly overlaps the entrance requirements for the engineering school. Appropriate majors include chemistry, computer science, environmental science and policy, mathematics, physics, and a self-designed liberal-arts/engineering major. At the engineering school, students may major in any of the fields they offer. In addition to the traditional engineering fields taught at all schools, unique programs such as engineering and public policy, biomedical engineering, system science and engineering, and fire-protection engineering are also available. Please consult the program chair for further information.

While the program is open to all Clark students, the required curriculum must be started during the first year of study to permit the timely completion of all requirements. Those students whose high-school background (as determined by placement examinations) has not prepared them to enter calculus (Mathematics 120) and composition (English 020) during their first semester must attend summer school to complete the requirements on time. All students intending to pursue the program are required to notify the program chair of their intent at the beginning of their first year and to choose their courses each semester in consultation with committee members.

Students are encouraged to seek a major adviser who is familiar with the program and to seek the advice of members of the 3/2 Engineering Committee. Sample curricula for appropriate majors can be obtained from the committee chair or on the Clark Web site. Students intending a self-designed liberal-arts/engineering major may wish to use the 3/2 Engineering Committee as their major advisory committee.

Requirements

In addition to the requirements of the Program of Liberal Studies and of their major at Clark (indicated elsewhere in this catalog), students must meet the entrance requirements of the engineering school. These requirements, which are essentially the same for all schools, can be found on the Clark Web site. Detailed questions concerning individual schools can be discussed with committee members.

The additional Clark requirements for the liberal-arts major and for the Program of Liberal Studies must be met concurrently with the above requirements. Several majors require additional summer-school work at Clark or advanced-placement standing to complete all requirements within the three-year period in residence at Clark. Students who complete a full year of study at the engineering school and who have completed all of Clark's requirements are eligible for the B.A. at the end of the fourth year of study.

Enrollment at the Engineering School

Students submit a formal application for admission to the engineering school through the 3/2 Engineering Committee during their junior year. Students receiving a positive endorsement from the committee normally can expect admission for enrollment as juniors at the engineering school in the following September. Application for financial aid is made at the same time, and those students receiving financial aid can expect to be supported at levels that are generally consistent with the level of Clark's support during the first three years. However, only Washington University awards financial aid to foreign students, who must rely on other sources of funds while at Columbia or WPI.

Students intending to enroll at WPI should apply as sophomores and may enroll in some engineering courses during their second or third year while still at Clark. Washington University encourages prospective students to enroll in one of their intensive January courses between Clark's first and second semesters.

ENGLISH

Department Faculty

SunHee Kim Gertz, Ph.D., *chair: Chaucer, medieval literature, comparative literature, semiotic theory, women's studies*

John J. Conron, Ph.D.: *American literature, American landscape, American culture, fine arts*

James P. Elliott, Ph.D.: *American literature, literary theory, textual editing*

Betsey Huang, Ph.D.: *Asian-American literature, ethnic American literature and theory, science fiction*

Fern L. Johnson, Ph.D.: *sociolinguistics, feminist linguistics, communication and culture*

Winston Napier, Ph.D.: *African-American literature, critical theory*

Heather Roberts, Ph.D.: *American literature, popular culture, gender studies*

Stanley Sultan, Ph.D.: *modernist literature, literary theory, politics and literature*

Virginia M. Vaughan, Ph.D.: *Shakespeare, English Renaissance literature; postcolonial appropriations of Shakespeare*

Department Instructors

Louis Bastien, Ph.D.

Timothy Connolly, M.A.

James Dempsey, M.A.

Diane Moul, Ph.D.

William G. Tapply, M.A.T.

Lucilia Valerio, Ph.D.

Adjunct Faculty

William Ferguson, Ph.D., *associate professor of Spanish*

Bernard Kaplan, Ph.D., *professor emeritus of psychology*

Emeriti

Jessie C. Cunningham, Ph.D.

Serena Hilsinger, Ph.D.

Writing Program

Anne Ellen Geller, Ph.D., *Director*

Undergraduate Major

The program is primarily designed to meet the needs and interests of English majors and minors, although the variety of courses we offer may also appeal to other students as well. We aim to assist students in developing skills in close reading, critical thinking, and effective writing, as well as in acquiring knowledge and experience valuable to any vocation.

Moreover, the program encourages the development of a sense of cultural history, a sensitivity to literary values, and a first-hand knowledge of important authors, works, and periods of literature in English.

We advise English majors to take two year-long historical sequences early on in their programs. Any student only majoring in English should also select—in consultation with his or her adviser—a suitable area of specialization drawing on courses, both inside and outside the English Department (see below).

Majors and minors should note that some courses fulfill more than one requirement. Requirements may also be fulfilled through an arrangement with the Worcester Consortium of Higher Education at Assumption College and the College of the Holy Cross. For those interested in studying abroad, majors and minors should contact the Office of Study Abroad Programs regarding our partner program at the University of East Anglia. In addition, the London Internship Program offers a variety of opportunities in fields such as theater and journalism.

For these and other aspects of the program, we strongly urge majors and minors to consult with their advisers.

The English Department is an active member of Clark's Higgins School of the Humanities and encourages students to participate in the school's events and opportunities.

Program for English Majors

Nonrequired Preparatory Courses:

- IDND 018 Expository Writing/Workshop
- 019 The Essay: Reading and Writing/Workshop
- 020 Introduction to Literature and Composition/Discussion

Core Requirements

A. Historical Sequence

The four courses used to satisfy this requirement must include either the entire sequence 140 and 141 or the entire sequence 180 and 181.

1. Each major must take at least two of the following four courses:
 - 133 Survey of Women Writers I
 - 140 Major British Writers I
 - 180 Major American Writers I
 - 182 African American Literature I
2. Each major must take at least one of the following four courses:
 - 134 Survey of Women Writers II
 - 141 Major British Writers II
 - 181 Major American Writers II
 - 183 African American Writers II

B. Genre Courses

1. Each major must take one of the following courses:
 - 109 Anatomy of Poetry
 - 110 English Poetry I
 - 111 English Poetry II
 - 184 American Poetry
2. Each major must also take one of the following courses:
 - 135 The Short Story
 - 143 Terrible Beauty: The Art of Tragedy
 - 144 Drama of the Western Tradition
 - 145 Fabulae: The Genre of Romance
 - 146 Oliver Twisted: The Literature of the Fantastic
 - 163 American Gothic

C. Period Requirements

1. Each major must take two courses of literature before 1700, one of which must be at the 200 level, such as: 140 Major British Writers I; 150 Introduction to Medieval

Literature; 250 Medieval Literature Seminar; 251 Chaucer; 253 Advanced Shakespeare; 254 Still Spaces—East Meets West; 255 Studies in the Renaissance; and 294 History of the English Language.

2. Each major must take one 200-level course of literature between 1700 and 1900, such as: 247 Wordsworth and His Circle; 263 British Romantic Literature; 265 Victorian Literature; 280 Early American Pop Culture; 281 American Literary Renaissance; 282 Studies in 19th-Century American Literature; and 283 Visions of Representation 1860-1920.
3. Each major must take one 200-level course of literature after 1900, such as: 272 Joyce and Lawrence; 274 W. B. Yeats; 278 Modern Political Literature; 279 Fictions of Asian-American Literature; 286 American Modernisms; 289 Postmodern Landscapes; 291 Harlem Renaissance; and 293 Studies in Landscapes.

D. Seminar on Criticism

Each major must take one 200-level seminar in the theory or practice of criticism, such as: 20th-Century Critical Methods; 242 Feminist Critical Theory; 244 Interpretation of Dreams; 248 Contemporary Literary Theory; 249 Signs and Crossroads: Semiotic Theory and Practice; 340 Introduction to Graduate Study; and Comparative Literature 251 Seminar in Literary Criticism.

E. 200-level Courses

Every major's program must include at least four courses at the 200 level in English in addition to the required seminar in criticism (see D, above). A student may count any of the courses listed under comparative literature toward the English major, which, however, must be approved by the student's adviser in the English Department as being related to the student's overall program of English studies. The 200-level courses of the comparative literature program such as Comparative Literature 240 and 241 are especially recommended.

F. Capstone Requirement

All English majors must take the 290 Capstone course during the fall semester of their senior year. The course aims to deepen and broaden the English major's knowledge and interpretive sensitivity while helping to prepare her or him for graduate school or professional life.

G. Area of Specialization

As early as possible, in combination with an adviser, the English major should select an area of specialization (at least six courses, four of which are typically fulfilled by core courses in the major).

Descriptions of areas of specialization with lists of required and recommended courses are available from the department.

Areas of specialization include literature written before 1700, 18th- and 19th-century literature, and 20th-century literature. The department also offers areas of specialization in community service, drama, creative writing or journalism, communication studies, education, and women's studies. With at least two members of the department faculty, English majors may design their own areas of specialization.

Students may substitute a second major, concentration, or a minor for the area of specialization as long as they demonstrate links between the English major and the substituted area of study through one of their courses.

Requirements for an English Minor

A minor provides a student majoring in another department with general background in English literature, as well as with skills in critical reading and writing. Ordinarily, the chair acts as adviser to minors. The minor in English requires at least six English courses, not including English 020 Introduction to Literature and Composition, as follows:

1. One course in poetry
2. One historical sequence (two courses) from the following:
 - 133-134 Survey of Women Writers
 - 140-141 Major British Writers
 - 180-181 Major American Writers
 - 182-183 African-American Literature

3. One seminar in criticism from the following:
 - 240 20th-century Critical Methods
 - 242 Feminist Critical Theory
 - 248 Contemporary Literary Theory
 - 249 Signs and Crossroads: Semiotic Theory and Practice
 - 281 American Literary Renaissance
 - 340 Introduction to Graduate Study in English
4. At least two other English courses, one of which must be a 200-level seminar.

Honors Program

At the end of their junior year, students in whom the faculty have expressed confidence will be invited to work on a yearlong honors thesis during their senior year. Other students who wish to take honors in English should identify an area of interest, consult with an appropriate honors adviser, and apply to the department chair before the end of the junior year. See 297 Honors in English for details.

Scholarly Research Program

Every year the prestigious American Antiquarian Society, a national research library of American history located in Worcester, offers seminars in specialized topics of interest to those studying American literature. Please consult with Professors Napier, Elliott, or Roberts for more information.

Internship Opportunities

In cooperation with the University's internship office, the English Department supports internships for juniors and seniors. Internships are available both in university offices and beyond the campus—for example, newspapers, news departments of radio and television stations, periodical and book publishers, and communication departments. Please consult with the chair for further information.

Health Professions

In an effort to enhance students' opportunities for entrance into medical, dental, and veterinary schools, the Premedical and Predental Advisory Committee has a special arrangement

with the English Department, allowing them to major in English while meeting the specific requirements of medical schools. If interested, please consult the chair.

Study Abroad

The English Department has a special arrangement with the University of East Anglia in England as well as with the London Internship Program. For information, please consult with the chair or University's Office of Study Abroad Programs.

Graduate Program

The program leading to the Master of Arts degree in English encourages both innovative, individually designed approaches of study as well as traditional approaches to literature. The controlled size of the program fosters an atmosphere of intensive intellectual exchange among faculty and students. Teaching assistantships with tuition remission plus stipend and full- and part-time tuition remission scholarships are available on a competitive basis. For the Master of Arts, the student must satisfactorily complete at least eight upper-level courses or seminars, which include 340 Introduction to Graduate Study, and 397 Master's Thesis. Graduate students will receive 300-level designations for graduate-level course work in those 200-level courses deemed suitable for graduate credit and for which they are expected to complete extra graduate requirements. Students are also required to register for and participate in 390 Departmental Colloquium (no course credit), where they will present working drafts on some aspect of their thesis topics. In addition to completion of the master's thesis (397), the student must pass a final oral examination.

Writing Program

Writing courses, limited in size to ensure attention to each student, are listed as "Interdepartmental/Nondepartmental (IDND)" because the teaching of writing at Clark is considered the responsibility of the entire faculty, not of any one department.

Verbal expression courses are listed in various departments.

IDND 018 EXPOSITORY WRITING/WORKSHOP

Centered on student writing, this course teaches the writing process, emphasizing revision. Students write informal exercises and essays. Course required of some students. Staff/Offered every semester

Department Courses

019 THE ESSAY: READING AND WRITING/WORKSHOP

Students will read and consider contemporary essays, and will write a variety of different types of essays, from academic and argumentative essays to more familiar, exploratory essays. Meets the verbal expression requirement. This course emphasizes revision. Ms. Geller/Offered every other year.

020 INTRODUCTION TO LITERATURE AND COMPOSITION/DISCUSSION

Students read and write about basic elements of poetry, fiction, and drama. Small classes and limited reading lists help establish an atmosphere conducive to significant class discussion; emphasis is placed on writing effectively about literature. Meets the verbal expression requirement and is strongly recommended for prospective English majors. No student may take more than one section of English 020 for credit. Staff/Offered every semester

021 LITERACY, LEARNING, WRITING

What is literacy? Is it more than reading and writing? How should it be taught, and who should learn? This class will introduce students to the challenging questions that inform contemporary literacy studies. In the first part of the course, students will read histories and theories of literacy. As the course proceeds, students will also think about their own literacies by constructing literacy autobiographies. Finally, by taking part in a community literacy project, students will reflect on their own roles as they engage with the literacies of their communities. Meets the verbal expression requirement. Ms. Geller/Offered every other year.

105 NEWS WRITING/WORKSHOP

Covers the basics of news writing, from reporting an event to writing an obituary. Students learn how to collect information, conduct interviews, and organize writing into crisp news copy. Class work includes weekly deadline writing assignments. Homework: weekly writing exercises based on textbook examples and field assignments, as well as readings from texts and daily newspapers. Prerequisites: verbal expression course. First-year students by permission. Mr. Connolly/Offered every year

106 CREATIVE WRITING: FICTION/WORKSHOP

For students who are inspired to write short or long stories (including novels). Equal emphasis on writing well and creating boldly, with focus on giving and receiving criticism in the workshop format. Students will be encouraged to “find their voices” by experimenting with style, genre and structure. Mr. Tapply/Offered every semester

107 CREATIVE WRITING: POETRY/WORKSHOP

A significant part of the class will be dedicated to exploring each student’s poetry through a constructive workshop approach. We will experience how poetry comes alive in voice, and use these insights to develop both oral and written media of expression. Students are expected to bring creative work to each class. As the semester progresses, we will experiment with ways to edit a gathering of poems into a coherent manuscript. Finally, we will also talk about the nuts, bolts, and jolts of getting published, as well as finding venues for public reading. This course could benefit both beginning and experienced writers. Not open to first-year students. Mr. Williams/Offered every year

109 ANATOMY OF POETRY/FIRST-YEAR SEMINAR

Many species communicate and therefore have languages, whether of sounds, or gestures, or both. But only humans are able to control language; for example, only a human can hear or read something never said or written before,

and understand it. Literature is art made by relying on this human quality, and poetry is the genre of literature most constituted of particular words. This is a seminar devoted to intensive study of poetry. The class will read and discuss poems in English from the Middle Ages to our own age, by poets of different nationalities, genders and races. This seminar satisfies the poetry requirement for the English major and fulfills the verbal expression requirement. Mr. Sultan/Offered periodically

110 ENGLISH POETRY I/LECTURE, DISCUSSION

Focuses on the development of the most important forms, themes, and movements in English poetry. This course, required for the English major, emphasizes intensive study and discussion of individual poems. It includes a series of essays on assigned topics, and a sequence of poetry-writing exercises designed to enhance understanding of the demands of poetry form. Fulfills the verbal expression requirement. Strongly recommended for English majors in the first or second year; seniors by permission. Staff/Offered every semester

111 ENGLISH POETRY II/LECTURE, DISCUSSION

Sequel to English Poetry I. Poetry by Yeats, Dickinson, Wordsworth, Milton, and a group of Renaissance lyric poets is studied in that order (reverse chronology). Relevant issues in the contexts and art of poetry are considered. Prerequisite: a poetry course. Mr. Sultan/Offered periodically

113 LITERATURE OF BASEBALL/FIRST-YEAR SEMINAR

This course, which fulfills a verbal expression requirement, will focus on the history of writing about baseball. This game has captured writerly imaginations virtually from its inception—Walt Whitman and Mark Twain wrote about it in the 19th century, Updike and Damon Runyon in the 20th, for example. Using a new anthology from the Library of America, we will explore the many ways American

authors have seen the game as a metaphor for American experience and, particularly since the advent of TV broadcasts, have “worshipped at the Church of Baseball.” Five short papers required, plus a creative piece about the student’s participation in or spectatorship of the game. Mr. Elliott/Offered periodically

120 INTRODUCTION TO SHAKESPEARE/LECTURE, DISCUSSION

Designed for any student who wants an introduction to Shakespeare. Seven major plays are read and discussed in detail with an emphasis on performance. Ms. Vaughan/Offered every year

133 SURVEY OF WOMEN WRITERS I/LECTURE, DISCUSSION

Examines how women writers before 1900 address, confront, avoid, subvert and question traditional notions of gender, culture, domesticity, history, ethnicity, and sexuality. Close attention is paid to textual reading, the historical and intellectual context of works, and different critical approaches to women’s writing. Authors include Behn, Burney, Austen, Sedgwick, Chopin, Gilman, Foster and Wilson. Prerequisite: verbal expression course. Ms. Valerio/ Offered every other year

134 SURVEY OF WOMEN WRITERS II/LECTURE, DISCUSSION

Examines developments in British and American prose fiction by women in the 20th century. Authors include Cather, Woolf, Lessing, Rhys, Gordiner, Morrison, Winterson, Cisneros, and Kincaid. Close attention is paid to textual reading, and defining, revising and challenging traditional definitions and expectations of women’s writing on various levels: thematic, linguistic, and formal. The course also addresses current critical approaches to women’s writing. Prerequisite: verbal expression course. Ms. Valerio/Offered every other year

135 THE SHORT STORY/LECTURE

This course involves intensive reading of stories that exemplify a variety of fictional methods and affords the student some knowledge of the history of this literary type. Attention will be paid to the international scope of the short story, particularly in the 20th century. Mr. Elliott/Offered every year

140 MAJOR BRITISH WRITERS I/LECTURE, DISCUSSION

The lecture/discussion sequence 140-141 takes a historical approach to British literature from the Middle Ages to the dawn of the 20th century. This course concentrates on medieval and early modern English literature (1000-1700); it will examine the cultural and literary construction of the hero and the lover in the writings of the Beowulf poet, Chaucer, Sidney, Spenser, Donne, Wroth, and Milton (among others). Ms. Vaughan/Offered every year

141 MAJOR BRITISH WRITERS II/LECTURE, DISCUSSION

This course examines British literature by major authors from 1700 to the late nineteenth century, concentrating on urban representation and the urban sensibility as expressed in drama, the novel, poetry and prose nonfiction. It will use the idea of the city for an exploration of what it means to be modern. Texts to be studied will include works by Wycherly, Congreve, Centlivre, Addison, Steele, Johnson, Smollett, Montagu, Baillie, Blake, Wordsworth, Dickens, Bronte and Marsh. Staff/Offered every other year

143 TERRIBLE BEAUTY: THE ART OF TRAGEDY/LECTURE, DISCUSSION

This course examines the historical evolution of tragedy and its central place in Western literary expression. Beginning with the three classical exemplars, Aeschylus, Sophocles, and Euripides, we trace tragedy through Roman closet drama (Seneca), Renaissance masters (Shakespeare), and European interpretations (Racine, Schiller), to both modern experimen-

tal tragedy (Miller) and modern attempts to revive the classical model (Eliot).

Mr. Bastien/Offered every other year

144 DRAMA OF THE WESTERN TRADITION/LECTURE, DISCUSSION

Surveys the traditional dramatic canon of the western tradition. Course readings will include plays by Sophocles, anonymous writers of the medieval cycles and morality plays, Marlowe, Shakespeare, Webster, Jonson, Molière, Congreve, and Sheridan. Ms. Vaughan/Offered every other year.

145 FABULAE: THE GENRE OF ROMANCE/LECTURE, DISCUSSION

This course examines the tradition of the romance genre, from classical antiquity to the present. Texts read range from early Greek “novels” and Medieval metrical romances, through the Gothic tale and Romantic poetry, to contemporary forms such as science fiction, fantasy, and horror. Along the way, students will be able to see how the general conservative elements of a given literary form are transmuted to accommodate a number of specific contexts. Prerequisite: verbal expression course. Mr. Bastien/Offered every other year

146 OLIVER TWISTED: THE LITERATURE OF THE FANTASTIC

This course investigates the development of the idea of the fantastic in both modern and postmodern fictions. From the theoretical considerations of such critics as Todorov, we read through texts that exemplify the variegated modes the fantastic can take, from the “ghost story” (Blackwood), fantasy (Ursula Le Guin), science fiction (Ballard), and fairy tale (Angela Carter), to “magical realism” (Marquez), the utopian/dystopian novel (Atwood), and the “experimental” fiction of Borges, Calvino, and Barthelme. Mr. Bastien/Offered every other year.

150 INTRODUCTION TO MEDIEVAL LITERATURE/LECTURE, DISCUSSION

Introduces western European medieval literature, touching on classical roots and contemporary counterparts in the process. Topics cov-

ered may include literary forms (epic, romance), social concerns (religion, the role of women, politics), and myth. Works read and discussed are selected from Anglo-Saxon, Anglo-Norman, Celtic, and Middle English authors, and range from Beowulf and Marie de France's *Lais* to the Gawain-poet and Chaucer. Mr. Bastien/Offered every year

163 AMERICAN GOTHIC/LECTURE, DISCUSSION

Studies the emergence and evolution of the American-gothic tradition, exploring the psychological, social and political uses of the gothic mode in a range of different genres. The semester begins with the works of Anne Radcliffe, Matthew “Monk” Lewis, and a brief overview of the 18th-century English gothic tradition, then crosses the Atlantic to examine the American heirs of this tradition. Nineteenth-century authors surveyed include Charles Brockden Brown, Edgar Allan Poe, Louisa May Alcott, Nathaniel Hawthorne, and Charlotte Perkins Gilman. The course ends with an exploration of gothic elements in the works of several 20th-century writers and filmmakers, including Toni Morrison, Stephen King, Wes Craven and Todd Haynes. Ms. Roberts/Offered every other year

180 MAJOR AMERICAN WRITERS/LECTURE, DISCUSSION

The sequence 180-181 takes a historical approach to American literature from Puritanism to the present. This course concentrates on early American literature, circa 1620-1860, with texts by Edwards, Rowlandson, Franklin, Douglass, Emerson, Dickinson, Whitman, Hawthorne, Melville, Stowe, and others are read. Prerequisite: verbal expression course recommended. Ms. Roberts/Offered every year

181 MAJOR AMERICAN WRITERS/LECTURE, DISCUSSION

This course concentrates on the evolution of American literature from circa 1860 to the present. Texts by such writers as Whitman, Twain, Howells, Dickinson, Jewett, Crane, James, Frost, Eliot, Faulkner, and Hemingway are read. Prerequisite: verbal expression course. Ms. Huang/Offered every year

182 AFRICAN-AMERICAN LITERATURE I/LECTURE, DISCUSSION

Addresses the major periods and principal authors of the African-American literary canon from the 18th and 19th centuries. Students examine works of such writers as Olaudah Equiano, Phillis Wheatley, Frank Webb, Harriet Jacobs, and Frances Harper. Students are expected to gain a chronological, as well as a culturally contextual, understanding of African-American literature. An analysis of the dominant themes, moods and aesthetic assumptions often indicative of black American literature is stressed. Mr. Napier/Offered every year

183 AFRICAN-AMERICAN LITERATURE II/LECTURE, DISCUSSION

Explores the aesthetic modes configuring the evolution of African-American literature in the 20th century, especially the novel. Writers studied include Toomer, Johnson, Hughes, Hurston, Wright, Ellison, Baraka, Morrison, Bambara and Naylor. Mr. Napier/Offered every year

184 AMERICAN POETRY/DISCUSSION

Concentrates on the differing experiences of the natural environment defined by narrative, incantational, and meditative poetry. The poetry studied includes the Navajo Night Chant and the work of Gary Snyder, Derek Walcott, Mary Oliver, Joseph Komunyakae, Rita Dove, and others. The course teaches and requires knowledge of the art of the image, the image sequence and the music of 20th-century American poetry. Mr. Conron/Offered spring 2004

188 THE CITY IN AMERICAN LITERATURE/FIRST-YEAR SEMINAR

This seminar will explore the emergence and development of the city as a central setting, theme, and metaphor in American fiction over the past two centuries. Beginning by surveying the gothic and sentimental visions of the city that characterized the antebellum period, we will continue with examinations of turn-of-

the-century naturalist and realist urban novels, continue through such 20th-century sub-genres as the 1920's immigrant novel and the 1950's noir detective novel, and end with an examination of several postmodernist and cyberpunk fictions of our own day. The class will address central questions about the relationships between literature and society, fantasy and reality, form and setting. Authors to be covered may include Theodore Dreiser, Edith Wharton, Anzia Yezierska, Henry Roth, James Baldwin, Toni Morrison, Raymond Chandler, Thomas Pynchon, and William Gibson. Fulfills the verbal-expression requirement. Ms. Roberts/Offered periodically

196 ORAL ADVOCACY/LECTURE, WORKSHOP

Centers on oral presentation of controversial issues and response to rhetorical dilemmas. Topics include: rhetorical situations and audience analysis; forms of argument in persuasive speaking; development of arguments with evidence; and ethical communication practices. Students prepare three major speeches and complete a number of exercises. Ms. Johnson/Offered every other year

202 FEATURE WRITING I/WORKSHOP

An introduction to the art and craft of feature writing. The feature story is a rendering of reality into words, which, when done well, has its feet in both journalism and literature. We will discuss the elements of the feature story as well as its various types and formats. We will learn how to find and develop stories, how to perform background research on subjects and how to interview. Course work will include reading and discussing feature stories and assigned texts. Students' stories will be read and discussed in class. Prerequisites: verbal expression course; first-year students by permission. Mr. Dempsey/Offered every year

203 FEATURE WRITING II/WORKSHOP

Develops the skills learned in Feature Writing I and leads students toward publication of their work. We will study various outlets for feature stories and hear from editors and writers on

breaking into markets. We will examine other forms of writing for techniques such as narrative, description, exposition and dialogue that may be put to use in own work. Libel and ethics will also be covered. Students should expect some demanding assignments. The aim is to produce pieces vibrant with the energy of the real. Prerequisites: Feature Writing I or permission. Not open to first-year students. Mr. Dempsey/Offered every year

204 WRITING FOR MAGAZINES

This course is for students who want to learn how to write articles they might actually sell to periodicals. We will emphasize such vital skills as: analyzing the markets, coming up with fresh ideas, slanting to the audience, researching and interviewing, creating killer leads, composing query and cover letters, submitting professional-looking manuscripts, writing to length, meeting deadlines, and, especially, writing well. Grades will be based on weekly writing assignments, participation and attendance, and evidence of improvement. Mr. Tapply/Offered every year

206 WRITING THE NOVEL I/WORKSHOP

This is a two-semester sequence for students who are serious about writing a novel. In a workshop format, we will explore the elements of long fiction (character, plot, theme, setting, etc.), writing styles and techniques, and issues such as giving and receiving criticism, revising, and overcoming writer's block. The first semester will focus on assembling the universal elements of fiction into an integrated concept for a novel. Students are not required to take both semesters. Mr. Tapply/Offered every other year.

207 WRITING THE NOVEL II/WORKSHOP

The second semester of this two-semester sequence will focus on regular productive writing. At the end of the course, students will have completed a significant beginning to their novel. Students are not required to take both semesters, but if they chose to take only the second one, they need permission of the instructor. Mr. Tapply/Offered every other year.

215 LANGUAGE AND CULTURE IN THE U.S./LECTURE, DISCUSSION

Using a cultural perspective on language, addresses varieties of language use in the United States. Topics include demographics in sociolinguistic perspective; the systematic nature of language; language and culture of African-Americans, Asian-Americans, Hispanic Americans; gender patterns in language; bilingualism and multilingualism in the United States; and the policy implications of language diversity. Ms. Johnson/Offered every year

230 SOUTHERN WRITERS OF THE 20TH CENTURY/SEMINAR

Much of the best writing in the United States in the 20th century came out of the South, a section that is itself quite diverse economically, demographically, politically, and culturally and a region that changed a great deal during that century. Because of sectional conflict, the Civil War, and the Reconstruction experience, it is also the region most self-conscious about itself as a region. Study of some of the strongest writers provides an opportunity for rewarding examination of relationships among social, racial, economic, and literary factors as well as an opportunity to compare literary features of their works with those of writings from other parts of the country. We will focus on writers working between the 1920s and the early 1960s, a period sometimes called the Southern Renaissance. Each student will do one major research paper based on original research either into the way one or more national journals dealt with the South as a region during part of this period or into the way one of our writers was reviewed and discussed during the period in which he or she was publishing. Each student will also come to each class prepared to lead discussion on one aspect of the text for the week. Mr. Bassett/ Offered periodically

240 20TH-CENTURY CRITICAL METHODS/ SEMINAR

Examines the primary movements in 20th-century European and American literary criticism and critical theory. Beginning with the

Formalist School and moving through New Criticism, the Marxist School, Structuralism, the Black Arts Movement, Feminism, Deconstruction and other manifestations of poststructuralism, investigates the philosophical assumptions that have reconfigured contemporary literary studies away from mere explication toward a concern with the epistemological, cultural, and ideological groundings of the text. Mr. Elliott/Offered every year

242 FEMINIST CRITICAL THEORY/SEMINAR

Focuses on the canon of postmodern feminist literary theory produced by the African-American feminist/womanist school, the *écriture féminine* school, the Lacanian/Freudian school, and the American generalist school. Target issues include authorial power and revisionary identities, body as text, deconstruction as feminist practice, principles of psycho-political liberation, racialized gender, and resistance to the universalizing traditions of phallogoculturalism. Mr. Napier/Offered periodically

245 MYTHOPOETICS/SEMINAR

This course examines modes and qualities of literary expression where we will find that narratives and poetry convey different expectations, which are also embedded in a variety of worldviews. Frequently, however, authors will attempt to craft these expectations and worldviews to accommodate nontraditional visions. Toward this end, we will read works by authors who strive to come to grips with their own experiences of the world. Texts will include Conrad's *Heart of Darkness*, Eliot's *The Waste Land*, Woolf's *The Waves*, Plath's *Ariel*, representative poems by Stevens, and selections from Joyce's *Ulysses*. Mr. Bastien/Offered every other year

248 CONTEMPORARY LITERARY THEORY/SEMINAR

Investigates and develops several theoretical approaches to literature in the late 20th century, attempting to provide glimpses into the range of theoretical issues and concerns. May also look at a literary text in relation to theory. General areas of study are selected from among

the following: textual criticism, new criticism, psychoanalysis/reader response, structuralism, poststructuralism, feminism, postcolonialism, postmodernism, gay and lesbian theory. Mr. Elliott/Offered every year

249 SIGNS AND CROSSROADS: SEMIOTIC THEORY AND PRACTICE/SEMINAR

Approaches semiotic theories comparatively from historical as well as theoretical points of view and practices them by drawing on literature, film, advertising, and drama. Ms. Gertz/Offered periodically

250 MEDIEVAL LITERATURE/SEMINAR

Explores medieval literary culture of Western Europe by means of literary theoretical and classical texts. Ms. Gertz/Offered periodically

251 CHAUCER/SEMINAR

Guides the student through "Book of the Duchess," "The House of Fame," "The Parlement of Fowls," some "Canterbury Tales," and "Troilus and Criseyde." All texts are taught in Middle English, and selections may vary. (No prior knowledge of Middle English required.) Ms. Gertz/Offered periodically

253 ADVANCED STUDIES IN SHAKESPEARE/SEMINAR

Explores recent trends in research and criticism of Shakespeare's texts. Topics and focus vary from year to year, but include feminist, new historicist, and cultural materialist interpretations, performance criticism, and theater history. Ms. Vaughan/Offered every year

254 STILL SPACES—EAST MEETS WEST: CONTEMPLATIVE PRACTICE IN THE CLASSROOM/SEMINAR

This course aims to explore and gain experience of contemplative practices as they have evolved in both European and Asian cultures. In addition to reading and writing about key texts that engage the "still space" outside the classroom, students will participate in a yoga course for seven weeks. The concepts of *ki* (centeredness) and *tao* (the way) will be probed through the tools of the metaphor and the narrative. Ms. Gertz/Offered periodically

255 STUDIES IN THE RENAISSANCE/SEMINAR

Explores the poets, playwrights, and prose writers who shaped the English literary Renaissance. Ms. Vaughan/Offered every other year

256 SHAKESPEARE FROM PAGE TO STAGE/LECTURE, WORKSHOP

Using "The Tempest," "Twelfth Night," "Macbeth" and "Othello," this course will provide historical context for understanding Shakespeare's texts, exposure to close analysis of Shakespeare's language (from both poetic and performance perspectives), as well as experience in acting Shakespearean roles. Students will be required to rehearse and perform scenes and monologues from four plays, concentrating on heightened language while maintaining the illusion of the first-time experience. Simultaneously, students will explore the texts' historical contexts, looking in particular at early modern constructions of gender, kinship, social status, and race. Ms. Vaughan and Mr. DiIorio/Offered periodically

257 LANGUAGE AT ISSUE/SEMINAR

Centers on current language policy issues in the United States. Focuses on issues such as ebonics, language translation in the legal process, bilingual education, and efforts to make English the official language of the United States. Issues are considered from the perspective of academic scholarship, media representations, legislative actions, and legal perspectives. Ms. Johnson/Offered periodically

263 BRITISH ROMANTIC LITERATURE/SEMINAR

Examines British Romantic literature from philosophical, social, and critical perspectives. Romantic authors such as Wordsworth, Coleridge, Byron, Keats, Mary Shelley, DeQuincey, Burns, and Blake will be studied to uncover what the Romantic sensibility is and how it relates to nature, the self, and society. Staff/Offered periodically

265 VICTORIAN LITERATURE/SEMINAR

Authors studied may include Charles Darwin, Charles Dickens, Alfred Tennyson, John Stuart Mill, Charlotte Brontë, Thomas Hardy, and Oscar Wilde, and less familiar but important people such as Henry Mayhew and Harriet Taylor. Staff/Offered periodically

270 AFRICAN AMERICAN SATIRICAL NOVEL/SEMINAR

This course offers a survey of the emergence and development of the African-American satirical novel from 1936 to the present. Students will have the opportunity to study selected works which black writers have produced to critique with disparaging humor the absurdities of interracialism, intraracism and other forms of social folly and injustice. As such, students will explore how black novelists use satire to produce sociocultural commentary in a manner theoretically distinct from that located in the traditional black protest novel. By studying ten selected novels. Students will gain a chronological as well as a constitutional sense of African-American Juvenalian and Horatian satire. Accordingly, students are expected to emerge with an understanding of the dominant aesthetic assumptions, themes, and critical moods defining black-American narrative satire. Mr. Napier/Offered every other year

272 JOYCE AND LAWRENCE/ SEMINAR

Introduces the art of the two writers. Poems, short stories, and novels by both are studied. Mr. Sultan/Offered every year

274 W.B. YEATS/SEMINAR

Studies the accomplishments of Yeats. The principal concern is his poetry, but attention is given to his dramatic and other writings. Also studied are his thoughts and beliefs along with his cultural role in Ireland and the world during his time. Prerequisite: either a poetry course or permission of the instructor. Mr. Sultan/Offered periodically

277 RACE AND GENDER IN AFRICAN-AMERICAN LITERARY THEORY/DISCUSSION

Covering the development of African-American literary theory from the 1970s to the present, this course will examine the ways in which prevailing assumptions of race and gender have influenced the theoretical statements on literary aesthetics and culture produced by African-American intellectuals. Various schools of thought as represented by these theorists include cultural nationalism, structuralism, feminism, poststructuralism and masculine studies. Mr. Napier/Offered every year

278 MODERN POLITICAL LITERATURE: CLASS, RACE, GENDER, ETHNICITY/SEMINAR

Covers political fiction, poetry, and plays of the past century, principally in the United States, Great Britain, Ireland, France, Germany, Russia, Czechoslovakia, Spain, and certain African- and Latin-American countries. Works advocating and attacking political formulations about class, nationality, race, and sex are studied. No prior knowledge of politics or political theory is necessary. Mr. Sultan/Offered periodically

279 FICTIONS IN ASIAN AMERICA/SEMINAR

With particular emphasis on the multiple meanings of "fiction," this seminar examines the ways in which the Asian-American identity is constructed, imagined, and contested in American literature and popular culture. Texts for the course include a wide range of works by writers, filmmakers, and critics of Asian and non-Asian descent to reflect the broad scope of cultural, historical, and theoretical perspectives on Asian-American representations. Analyses will focus primarily on how texts and films produced within the last decade maintain or challenge established boundaries of the Asian-American identity. Specific issues to be investigated include the model minority discourse and the demands of assimilation and citizenship; ethnic authenticity and hybridity; gender roles and sexual anxieties; cultural memory and nostalgia; and the commodifica-

tion of Asian cultures and identities. Students must also attend scheduled film screenings and actively participate in the online class discussion list. Ms. Huang/Offered every other year

280 EARLY AMERICAN POP CULTURE/SEMINAR

Traces the emergence and development of various popular forms in America in the antebellum period. Examines popular fiction genres such as the sketchbook, the domestic novel, the gothic-city mystery, the melodrama, and the historical romance alongside nonfictional texts such as almanacs, broadsides, penny papers and etiquette manuals. Analyzes how these emerging popular media challenged the cultural authority of traditional institutions such as the church, and will examine the role played by such forms in creating and maintaining the perceived distinctions between men's and women's spheres of social influence and between lowbrow and highbrow culture. Specific authors covered may include Benjamin Franklin, James Fenimore Cooper, Maria Cummins, Washington Irving, George Lippard, Susannah Rowson, E.D.E.N. Southworth, Harriet Beecher Stowe, Royall Tyler, Susan Warner, and Michael Wigglesworth. Ms. Roberts/Offered every other year

281 AMERICAN LITERARY RENAISSANCE/SEMINAR

Focuses on the turbulent decades of the 1850s and the manner in which this period has been framed by 20th-century critics as the era of America's literary "flowering." After examining F. O. Matthiessen's seminal thesis, we will read a number of critical essays questioning the literary and political assumptions that helped canonize certain of the period's writers while excluding others. Reading works by major writers such as Dickinson, Hawthorne, Melville, Douglass, and Stowe, we will explore how these writers' dialogues with one another shed light on the debate over how we should read them today. Ms. Roberts/Offered every year

282 STUDIES IN 19TH-CENTURY AMERICAN LITERATURE/SEMINAR

An historical analysis of canonized and non-canonized American works from the second half of the 19th century. Historical contexts will be examined to explore the progression of interpretations directed at these works up to the present time. Mr. Elliott/Offered periodically

283 VISIONS OF REPRESENTATION: 1860-1920/SEMINAR

Explores the problematic assumptions of literary representation underlying American realism through selected works of American writers. Conventional interpretations of realist writing are often challenged by issues of race, class, gender, and cultural contexts. Examines works by Twain, Howells, James, Dreiser, Jewett, Cather, Cooke, Chopin, and others. Mr. Elliott/Offered every other year

289 POSTMODERN LANDSCAPE/SEMINAR

This seminar on postmodern and postcolonial American literature considers senses of place in recent American Indian, Latino (including Chicano, Cuban, and eventually Puerto Rican), Asian-American, and Afro-Caribbean writing. The course is designed to evoke the character of "life on the hyphen": that is, on the cultural borders between American and Asian, Latin, Indian, African. Including, in any given semester, not more than three novels by writers of three of these ethnicities, it addresses intensively novels that seek to imagine and evoke (to remember) premodern and precolonial narratives, both historical and cosmological, as means of challenging the displacements created by the dominant narratives of Anglo-European culture. The novels chosen will be contextualized geographically, historically, and mythologically by supplementary readings. The course is designed to speak chiefly to the need for students to develop an imagination for, and a grounding in, ethnic multiplicity. Permission required. Mr. Conron/Offered periodically.

290 CAPSTONE/SEMINAR

The capstone course aims to deepen and broaden each senior major's knowledge and interpretive skills. Time will be spent on those aspects of English or American literature which the department feels every major should know. Throughout the semester, each student will work on a paper of his or her choosing (e.g., a research paper for another seminar, a part of the honor's thesis). The literary text that will function as our touchstone throughout the semester is Dante's *Divine Comedy*. Seniors only, Ms. Gertz/Offered every year

291 HARLEM RENAISSANCE/SEMINAR

Introduces the development of African-American aesthetics and literature as they evolved from roughly 1920 to 1935. The defining historical forces of the 19th century as well as those of the early 20th century are explored as auxiliary concerns for the focused examination of the major and minor figures comprising this movement. This course will also examine the Harlem Renaissance women writers and their works which, until recently, have remained largely unknown. Mr. Napier/Offered periodically

293 STUDIES IN LANDSCAPE/SEMINAR

Concentrates on various aspects of late 20th-century American space, place and environment in literature, painting, photography, film and actual landscapes. Texts are chosen and taught by the students. Prerequisite: English 286, 287, or by permission. Mr. Conron/Offered spring 2004

294 HISTORY OF THE ENGLISH LANGUAGE/SEMINAR

Examines changes in English mainly during the Anglo-Saxon and medieval periods. In addition to learning phonological and grammatical characteristics of the language during each period, the student examines language as a mirror of culture. Ms. Gertz/Offered periodically

295 GENDER AND DISCOURSE/SEMINAR

Focuses on how cultural conceptions of gender guide language use for males and females and on ways in which discourse in its cultural con-

text constructs gender. The implications for language use of ideology, enculturation and socialization patterns, dominance and inequality, and cultural diversity are considered. Both theory and research are covered, and students conduct their own research projects.

Ms. Johnson/Offered every year

297 HONORS IN ENGLISH: SENIOR YEAR

Invited and interested students should identify an area of interest with an adviser and apply in writing to the department chair with a brief description of the project *before the end of the junior year*. Honors in English normally carries two credits. With the adviser's approval, students should register as English 299.8 Honors in English for one credit in each of the two semesters of their senior year. The adviser and the student will agree on the project's stages. However, the department requires that a completed draft be turned in by the first day of the spring semester. The final thesis is due *three weeks* before the last day of the spring semester classes. The department requires one copy of the final thesis. A second reader, chosen by the student and the adviser, participates in the final evaluation. Details are available in the handbook for English majors. Staff/Offered every year

298 INTERNSHIPS

Offered for variable credit. Staff

299 DIRECTED STUDY

When asking a faculty member to sponsor directed study courses (299), the student should: 1) demonstrate competence to deal with the materials as literature and 2) present a well thought-out proposal. The student must take the initiative in selecting readings or carrying out the special project. Offered for variable credit. Staff

300 PEDAGOGY I

A one-on-one with a departmental faculty member on pedagogy. TAs only.

301 PEDAGOGY II

An advanced one-on-one with a department faculty member enabling the graduate student to acquire expertise in teaching. TAs only. Prerequisite: ENG 300

302 AND 303 PEDAGOGY III & IV

For second-year graduate students who have been awarded a teaching assistantship or a lectureship. Advanced mentoring and classroom assignments as arranged with individual department faculty members. Information available from the chair. Prerequisite: ENG 300 and ENG 301.

315 LANGUAGE AND CULTURE IN THE U.S.

See English 215. Ms. Johnson/Offered every year

340 INTRODUCTION TO GRADUATE STUDY IN ENGLISH/SEMINAR

Examines certain fundamental aspects of literary theory and considers the nature of and relationships among the three principal areas in the discipline—bibliography and textual analysis, literary history, and literary criticism, emphasizing theory. M.A. candidates not specifically exempted are required to take this course. Seniors by permission of the instructor. Mr. Sultan/Offered every fall semester

341 20TH-CENTURY CRITICAL METHODS

See English 240. Mr. Napier/Offered every year

342 GRADUATE SEMINAR: SPECIAL TOPICS

This seminar will be offered on a rotating basis by full-time faculty. Topic to be announced. Offered every other year

343 FEMINIST CRITICAL THEORY

See English 242. Mr. Napier/Offered every other year

345 MYTHOPOETICS/SEMINAR

See English 245. Mr. Bastien/Offered every other year

348 CONTEMPORARY LITERARY THEORY

See English 248. Mr. Elliott/Offered every year

349 SIGNS AND CROSSROADS: SEMIOTIC THEORY AND PRACTICE

See English 249. Ms. Gertz/Offered periodically

350 MEDIEVAL LITERATURE SEMINAR
See English 250. Ms. Gertz/Offered periodically

351 CHAUCER
See English 251. Ms. Gertz/Offered periodically

353 ADVANCED STUDIES IN SHAKESPEARE
See English 353. Ms. Vaughan/Offered every year

354 STILL SPACES - EAST MEETS WEST: CONTEMPLATIVE PRACTICE IN THE CLASSROOM
See English 254. Ms. Gertz/Offered periodically

355 STUDIES IN THE RENAISSANCE
See English 255. Ms. Vaughan/Offered every other year

356 SHAKESPEARE: PAGE TO STAGE
See English 256. Ms. Vaughan and Mr. DiIorio/Offered periodically

357 LANGUAGE AT ISSUE
See English 257. Ms. Johnson/Offered periodically

363 BRITISH ROMANTIC LITERATURE
See English 263. Staff/Offered periodically

365 VICTORIAN LITERATURE
See English 265. Staff/Offered periodically

370 AFRICAN-AMERICAN SATIRICAL NOVEL
See English 270. Mr. Napier/Offered every other year

371 VOICES FROM THE HOLOCAUST: TESTIMONY, LITERATURE, ART/SEMINAR
See English 271. Mr. Langer/Offered Fall 2002

372 JOYCE AND LAWRENCE
See English 272. Mr. Sultan/Offered every year

374 W. B. YEATS
See English 274. Mr. Sultan/Offered periodically

377 RACE AND GENDER IN AFRICAN-AMERICAN LITERARY THEORY
See English 377. Mr. Napier/Offered every year

378 MODERN POLITICAL LITERATURE
See English 278. Mr. Sultan/Offered periodically

379 FICTIONS IN ASIAN AMERICA
See English 279. Ms. Huang/Offered every other year

380 EARLY AMERICAN POP CULTURE
See English 280. Mr. Roberts/Offered every other year

381 AMERICAN LITERARY RENAISSANCE
See English 281. Ms. Roberts/Offered every year

383 VISIONS OF REPRESENTATION: 1860-1920
See English 283. Mr. Elliott/Offered every other year

389 POSTMODERN LANDSCAPES
See English 289. Mr. Conron/Offered periodically

391 HARLEM RENAISSANCE
See English 291. Mr. Napier/Offered periodically

393 STUDIES IN LANDSCAPES
See English 293. Mr. Conron/Offered spring 2004

394 HISTORY OF THE ENGLISH LANGUAGE
See English 294. Ms. Gertz/Offered periodically

395 GENDER AND DISCOURSE
See English 295. Ms. Johnson/Offered every year

390 DEPARTMENTAL COLLOQUIUM
Provides graduate students with guidance, expertise, and resolution for the writing of the master's thesis. The chief requirement is an oral presentation, ordinarily given in the student's final semester of course work. Participation and registration are required; however, the colloquium does not carry course credit and is not included as one of the eight courses needed to fulfill M.A. requirements. Ms. Gertz/Offered every semester

397 MASTER'S THESIS
Prerequisite: permission of thesis adviser. Staff/Offered every semester

398 GRADUATE INTERNSHIPS
Staff/Offered for variable credit

399 GRADUATE DIRECTED STUDY
Staff/Offered for variable credit

ENVIRONMENTAL SCIENCE AND POLICY

Program Faculty

Halina S. Brown, Ph.D.: *toxicology, risk analysis and management, industry and environment, environmental policy, international issues*

Charles Agosta, Ph.D.: *experimental condensed matter physics, energy*

S. Leslie Blatt, Ph.D.: *physics, nuclear reactions, energy considerations*

Patrick Derr, Ph.D.: *philosophy, biomedical ethics, history and philosophy of science, ethical issues in risk analysis and management*

Timothy J. Downs, D.Env.: *natural resource management, water supply and sanitation, integrated capacity building, risk analysis, impacts assessment, Latin America*

Jacque L. Emel, Ph.D.: *water resources, environmental politics, hydrology*

Robert L. Goble, Ph.D.: *physics, sustainable resource management, community participation in environmental decisions, risk analysis and management*

Jacqueline Geoghegan, Ph.D.: *resource economics, environmental policy, land use*

Susan Foster, Ph.D.: *ecology, evolutionary biology, population biology*

Dale Hattis, Ph.D.: *quantitative risk assessment, pharmacokinetic modeling, carcinogenesis, biomarkers, interindividual variability*

Todd P. Livdahl, Ph.D.: *ecology, population biology*

Donald Nelson, Ph.D.: *protein chemistry, environmental analysis*

Samuel J. Ratick, Ph.D.: *environmental engineering, energy and environmental systems, environment and public policy, modeling, quantitative methods*

Joseph Sarkis, Ph.D.: *operations management, environmentally conscious business practices*

Research Professor

Christoph Hohenemser, Ph.D.: *physics, technology assessment, hazard management, energy policy*

Affiliate Faculty

Lois J. Bruinooge, J.D.: *wetlands and tidelands protection, environmental enforcement, municipal conservation issues*

Program

Environmental science and policy is an interdisciplinary program that emphasizes policy questions about the environment and the use and misuse of science and technology. The goal of the program is to enable individuals to deal with technical and environmental issues in social and political arenas with an acute awareness of the short- and long-range limitations of the natural environment to respond to human interventions. The environmental science and policy program, as part of the Department of International Development, Community and Environment, offers an undergraduate major and a master of arts degree.

Participating environmental science and policy program faculty are drawn from a variety of departments and disciplines. They have research interests in a wide range of societal problems, including environmental science and management, energy and technology policy, and assessment and control of technological hazards. Undergraduates can gain practical skills in the world of research through opportunities to work collaboratively on research projects with faculty and graduate students. Research topics focus on both the developed and developing world and include energy policy assessment, control of technological hazards, and environmental science and management.

Undergraduate Major

Required courses have been designed to provide students with a solid foundation in natural science and in-depth understanding of social science and public-policy perspectives. A solid grasp of natural science is vital for two reasons: (1) many fundamental issues are fully understood only when the scientific elements are made clear and (2) there is a great need in this field for managers of science, technology and environment who possess a comprehensive

scientific background. Recognizing this, the environmental science and policy major stresses natural science and mathematics. Emphasis in all courses is the effects of human activities on the natural environment and public health, and on the use of science in policy making.

Requirements for the Major

Degree requirements for the environmental science and policy major include 18 courses:

- 10 courses of natural science and/or mathematics (in one of three tracks)
- two courses in the social sciences, with emphasis on public policy
- six environmental science and policy courses, including the capstone.

Environmental science and policy majors may choose one of three tracks:

- I. Natural Science with a Disciplinary Focus
- II. Natural Science in Ecology
- III. Mathematics and Computer Science

I: Natural Science Track with a Disciplinary Focus

Requirements

- Six courses in one discipline of natural science, chosen from physics, chemistry, biology, or biochemistry.
- (NOTE: Of the six courses in one discipline of natural science, at least two must be at 200 level to demonstrate literacy in the discipline. Students are required to consult with a faculty adviser from the natural science department selected to develop a coherent course of study in that discipline.)
- Two additional courses in a second natural science
 - Two courses in mathematics: calculus and statistics
 - Two courses in the social sciences, with emphasis on public policy
 - Six environmental science and policy courses, including the capstone seminar.

II: Natural Science Track in Ecology

Requirements

- Eight courses in biodiversity, physical geography and quantitative mapping.

NOTE: Of the eight courses in natural science, at least two must be at 200 level. Chemistry 080, Perspectives in Environmental Chemistry, is required to be one of these eight courses. In individual cases, the faculty adviser may approve another chemistry course as a substitute for Chemistry 080.

Physical Geography and Quantitative Mapping Courses

- GEOG 014 Introduction to Physical Geography
- GEOG 115 Hydrology
- GEOG 113 Forest Hydrology
- GEOG 114 Intermediate Geomorphology
- GEOG 121 Introduction to Geology
- GEOG /EN 190 Introduction to GIS
- GEOG /EN 204 Watershed Ecology
- GEOG 205 Directed Research in Forested Ecosystems
- GEOG /EN 260 Quantitative Modeling

Biodiversity Courses

- BIOL 101-102 Introduction to Biology (parts 1 and 2)
 - BIOL 105 Evolution
 - BIOL 106 Quantitative Methods in Biology
 - BIOL 110 Introduction to Botanical Diversity
 - BIOL 114 Marine Biology
 - BIOL /EN 216 Ecology
 - BIOL 220 Population Biology
 - BIOL /EN 217 Ecology of Infectious Disease
- Two courses in mathematics: calculus and statistics
 - Two courses in the social sciences, with emphasis on public policy
 - Six environmental science and policy courses, including the capstone seminar.

III: Mathematics and Computer Science Track

Requirements

- Four courses in natural science, chosen from biology, chemistry, physics, and physical geography. One of the four courses should be the following:

CHEM 080 Perspectives in Environmental Chemistry

BIOL 104 Biodiversity or

PHYS 144/ EN 240 Energy and the Environment

- Six courses in computer science and/or mathematics, including calculus and statistics. Of the six courses, at least two must be at 200 level.

(NOTE: Students are required to consult with a faculty adviser from the mathematics and computer science departments to develop a coherent course of study in that discipline.)

- Two courses in social sciences, with emphasis on public policy
- Six environmental science and policy courses, including the capstone seminar.

Required for all three tracks:

Mathematics: two courses — calculus and statistics

The following courses satisfy the statistics requirement:

ECON 160 Introduction to Statistical Analysis

GOVT 107 Research Methods

GEOG 110/EN 247 Computer and Quantitative Methods

PSYC 105 Quantitative Methods

BIOL 106 Quantitative Methods

BIOL 280 Biostatistics

Social Sciences: Two courses should be chosen from the fields of economics, government, social geography, or sociology.

Examples of appropriate courses in social sciences.

GOVT 154 The Politics of Public Policy in the United States

GOVT 157 Politics of Environmental Issues in the United States

GOVT 213 Policy Analysis

GOVT 281 Politics of Public Management

ECON 256 Environmental and Natural Resources Economics

ECON 157 The Economics of Natural Resources and the Environment

SOC 205 Sociology of Environment

GEOG 127 Political Economy of Third World

GEOG 142 Cities and Culture

GEOG 171 Ecology and Economy of the Tropics

GEOG 224 Economy and Environment

- **Environmental science and policy courses:** Students must take six courses with an EN designation. Three are required, and three are elective.

The three required environmental science and policy courses are:

EN 101 Introductory Case Studies in environmental science and policy

EN 175: Science, Decision Making, and Uncertainty

EN 290: Capstone Seminar, taken in the fall of the senior year.

Students may enhance the capstone seminar by integrating it with internships (experience outside the University), research participation in one of the environmental science and policy research groups, or individual research projects designed by the student. The capstone experience may include the presentation of an honors thesis and a poster in the Clark University Academic Spree Day event, which is held each spring.

Students choose three additional EN elective courses from the following list.

(NOTE: At least two of these courses must be at a 200 level.)

EN 080 Perspectives in Environmental Chemistry

EN 123 Environmental Ethics

EN 142 Environmental Chemistry

EN 171 International Perspectives on Environmental Problems and Policies

EN 180 Earth Transformed by Human Action

- EN 210 Environment and Society
- EN 216 Ecology
- EN 226 The Societal Analysis and
Evaluation of Environmental Hazards
- EN 240 Energy and the Environment
- EN 241 Environmental Toxicology
- EN 246 Cancer: Science and Society
- EN 247 Computer and Quantitative
Methods in Risk Analysis
- EN 250 Technology and Environmental
Assessment
- EN 251 Limits of the Earth
- EN 252 Corporate Environmental
Management
- EN 257 Environmental and Natural
Resource Economics
- EN 260 Quantitative Modeling
- EN 265 Tools for Quantitative Policy
Analysis
- EN 276 Environmental Law
- EN 280 Urban Ecology: Cities as
Ecosystems
- EN 282 Management of Environmental
Pollutants
- EN 284 Environment and Development
- EN 286 Sustainability, Institutions and
Policy Making

Declaring a Major

Clark requires all undergraduates to declare a major by the end of the second semester of the sophomore year. To do so, students obtain a declaration-of-major form at the Registrar's Office or in Academic Advising. The completed form should be signed by the undergraduate environmental science and policy adviser. A copy of the signed form should be given to the international development, community and environment (IDCE) office, which will maintain an undergraduate folder for you.

Continued Academic Advising

After becoming environmental science and policy majors, students should consult with their undergraduate environmental science and policy adviser, who will provide information, help select a course of study, and discuss

progress. The environmental science and policy adviser replaces the academic adviser assigned when entering Clark. This faculty advising assures that students' questions are answered and confirms that degree requirements and educational goals are met. Students are encouraged to discuss any other important academic issues or concerns with their advisers.

Double Majors

The environmental science and policy major meshes very well with a double major in science or mathematics, due to the emphasis placed on developing a solid scientific and/or mathematics background. Selecting this double major automatically fulfills the natural science/mathematics requirements of the environmental science and policy program. This leaves a relatively small number of classes, mostly in the social sciences and environmental science and policy categories, to be taken in addition to departmental requirements. Several of these will fulfill the University's requirements for the program of liberal studies as perspective courses.

Double majoring with a social science department is more difficult because of the larger number of courses that must be taken to fulfill requirements with a lesser degree of overlap. Still, some students have put together successful joint programs between environmental science and policy and departments such as economics and geography, the latter of which has separate requirements for dual or interdisciplinary majors. Double majors in humanities are feasible and have been successfully pursued, but they require careful planning.

Research Participation

Research participation provides a valuable learning opportunity as students interact with faculty members beyond the classroom. Most research projects require the equivalent of one or two semester-long courses, and often involve joining a research group comprised of one or more faculty and graduate students.

Honors

Honors in environmental science and policy is awarded upon presentation and oral defense of an undergraduate capstone project and poster, which is presented at the Clark Academic Spree Day. To be considered, students must have attained at least a 3.0 grade-point average in courses related to the major by their junior year. It is advisable to begin work during the summer after the junior year on a project that can be extended into an honors thesis during the senior year. A faculty member will serve as a project mentor, so it is essential for students to gain his or her agreement before beginning the project. The proposal must be submitted to the environmental science and policy faculty and approved in the beginning of the fall semester of the senior year. There are three classifications of honors: honors, high honors, highest honors.

Internships

Internships broaden undergraduate education, and majoring students are encouraged to work outside the University in paid or unpaid positions related to their studies. An internship is most valuable after the junior year, when a student has developed intellectually and is ready to tackle interdisciplinary problem solving. This experience can be very helpful when it comes time to identify a research topic to be pursued in the senior year. A combination of work experience and research in their field proves invaluable when students enter the job market.

Internships are usually obtained on a case-by-case basis with the advice and assistance of the environmental science and policy faculty adviser. Students who are interested in internships should discuss the matter with their undergraduate adviser and Academic Advising. If students wish to receive credit for an internship, it is essential that they provide a detailed written analysis of their work.

Environmental science and policy may be an ideal major for students planning to continue in professional schools, because its requirements dovetail with those for many premedical and pre dental programs. The number of jobs available to graduating environmental science and policy majors increases every year.

The Five-Year B.A./M.A. Program

The five-year B.A./M.A. program provides more intensive graduate study of environmental science and policy in combination with a liberal-arts B.A. degree. This degree is offered through the Department of International Development, Community and Environment. Students in any undergraduate field are accepted for the M.A. degree, though environmental science and policy undergraduate majors do have a significant advantage in preparation. Qualified environmental science and policy majors can be admitted into the five-year program without any additional requirements. Majors in other disciplines, however, must supplement their studies with a number of preparatory environmental science and policy courses. Students must apply for this program by the junior year to receive full-tuition remission.

A request for admission to the combined B.A./M.A. program is made to the environmental science and policy program graduate adviser during the junior year, and will be granted in the senior year on presentation of an acceptable program of undergraduate study. Full-tuition remission requires a cumulative average of 3.25 or better. Students admitted to the B.A./M.A. program take two graduate courses in their senior year. During the fifth year, their requirement for completion of the master's degree consists of eight additional credits.

The master's degree in environmental science and policy is intended to train individuals to go directly from Clark into problem-solving jobs in the areas of health-risk assessment, ecological-risk assessment, technology assessment,

environmental policy, resource management, computer modeling, and other selected fields.

For details on curriculum of the master's degree in environmental science and policy and admission requirements, please contact the IDCE office at 793-7201, and refer to the Guide to Accelerated Degree Programs.

The Graduate Curriculum

Please refer to the environmental science and policy Graduate Program section found in the Department of International Development, Community and Environment section of this catalog.

Courses

080 PERSPECTIVES IN ENVIRONMENTAL CHEMISTRY/LECTURE, DISCUSSION

See Chemistry 080. Mr. Nelson. Offered every year

101 INTRODUCTORY CASE STUDIES/LECTURE, DISCUSSION

Consists of detailed analysis of three cases that typify the concerns of the environmental science and policy program. These cover the various aspects of environmental and technical risks. Each case entails scientific and technical analysis as well as social and policy considerations. Formal lectures, readings, written assignments, and class discussion will be included.

Ms. Brown/Offered every year

120 DISCOVERING ENVIRONMENTAL SCIENCE/LECTURE, DISCUSSION

Aimed at environmental science and policy majors and science majors, this course covers key scientific and technical topics, emphasizing quantitative environmental problem solving. Topics include: mass and energy transfer, mathematics of growth, water pollution, water-quality control, air pollution, global atmospheric change, and solid-waste management. Provides a solid foundation in the scientific principles underlying environmental problems, complementing courses with a joint science-policy orientation, or more policy-oriented courses. Algebra and calculus skills required. Mr. Downs/Offered every year.

123 ENVIRONMENTAL ETHICS/LECTURE, DISCUSSION

See Philosophy 131. Mr. Derr/Offered every year

142 ENVIRONMENTAL CHEMISTRY/LECTURE, LABORATORY

Focuses on the chemistry related to environmental problems, particularly aquatic chemistry and aquatic pollution. Equilibrium theory is developed as a model for aquatic chemistry, and chemical analyses of a local aquatic system are conducted in the laboratory according to Environmental Protection Agency procedures. Mr. Nelson/Offered every year

171 INTERNATIONAL PERSPECTIVES ON ENVIRONMENTAL PROBLEMS AND POLICIES/LECTURE, DISCUSSION

Highlights the scope of major global issues (e.g. climate change and biodiversity conservation), their social and political contexts, and what influences our population, development and environmental-policy choices. Two central themes are used: 1) conflicts of interest over assets, amenity, and distribution of costs and benefits, and 2) sustainable development ideas, conflicts, and operational processes. The practicalities of solutions such as cultural change, business and trade practices, and regulations are explored. Mr. Downs/Offered every other year

175 SCIENCE, DECISION MAKING, AND UNCERTAINTY/LECTURE, WORKSHOP

Examines decision making under conditions of scientific uncertainty. The goal of the course is to describe: (1) strengths and limitations of scientific analysis in the assessment of environmental and technological issues and (2) methods designed to aid decision making under uncertainty. Initial emphasis is on the structure of scientific knowledge, ways of knowing, and types of scientific uncertainty, with examples drawn from particle physics, chemistry, engineering, epidemiology, and opinion research. Case studies are discussed of real-world environmental and technological risk management issues, such as setting EPA standards, Mad Cow disease, and global warming. A weekly work-

shop or laboratory includes practical exercises in statistical treatment of data, fitting data to a form, calculation of uncertainty, interpretation of epidemiological data, and computer simulations. A scientific perspective credit. Mr. Goble/Offered every year

180 THE EARTH TRANSFORMED BY HUMAN ACTION/LECTURE, DISCUSSION

See Geography 180. Mr. Turner/Offered every year

215 COMPARATIVE ENVIRONMENTAL POLITICS

See Government 216.

216 ECOLOGY/LECTURE

Provides an overview of ecology as a scientific discipline. The primary emphasis is on efforts to explain and predict the distribution and abundance of organisms, how ecological communities are composed, and why they vary in time and space. Prerequisites: one or more courses from the organismal biology group and one college-level math course. Mr. Livdahl/Offered every year

217 ECOLOGY OF INFECTIOUS DISEASE/LECTURE, DISCUSSION

Explores the relationship between infectious disease agents and their hosts, and how that interaction can effect changes in the abundance of host populations. Factors that contribute to the occurrence and persistence of epidemics, the evolution of virulence and transmission, and strategies for controlling epidemics will be considered using theoretical approaches and case studies of diseases affecting humans and other hosts. A wide spectrum of human diseases will be considered, including human pathogens of recent concern (examples include HIV, Lyme Disease, West Nile Virus) and of historic and continuing importance (e.g., schistosomiasis, malaria, smallpox, yellow fever). Mr. Livdahl/Offered every other year

226 THE SOCIETAL ANALYSIS AND EVALUATION OF ENVIRONMENTAL HAZARDS: THEORY AND METHODS/SEMINAR

Theory and methods of hazard assessment and social response. Covers natural, technological, and global hazards and includes such topics as

human vulnerability, disasters, public perceptions, social amplifications of risk, social learning, and corporate management of risk. Mr. Polsky/Offered every year

231 LANDSCAPE ECOLOGY

See Geography 232. Mr. Rogan/Offered every year

232 CASE STUDIES IN ENVIRONMENTAL ETHICS/SEMINAR

An intensive investigation of a small set of environmental issues selected by the students in consultation with the professor. In recent years, students have chosen to work on such issues as: ski runs vs. eastern old-growth forest on Mt. Wachusett, removing the John Day Dam, ecotourism in Costa Rica, sea turtle preservation vs. GATT/WTO, whaling by indigenous peoples, genetically modified rice, and methane capture technology in the dairy industry. Students may elect to do their research individually or in small groups. Seminar/tutorial format. Major research paper. Mr. Derr/Offered every other year

240 ENERGY AND THE ENVIRONMENT

The production and utilization of energy play a central role in modern civilization, and constitute an increasing drain on our natural resources. Undesired by-products of large-scale energy usage are becoming more apparent, including local heating of streams and global warming, pollution of the atmosphere and ocean, and real and perceived dangers related to the use of advanced technology. The course explores these environmental concerns in the context of the possibilities and limitations set by physical laws, and considers the extent to which science must be involved in their resolution. Prerequisite: two semesters of introductory physics. Mr. Agosta/Offered every other year

241 ENVIRONMENTAL TOXICOLOGY/LECTURE, DISCUSSION

Focuses on the assessment of hazardous properties of toxic chemicals in the environment and on development of public-health policy. Covers the principles of absorption, distribu-

tion, excretion, and toxic action of chemicals on humans; animal testing; and human epidemiology. Also covers assessment of public-health risks on the basis of animal and human test results, development of standards for air and water contaminants, and uncertainty in regulating hazardous chemicals. Prerequisite: one semester of organic chemistry or permission of the instructor. Ms. Brown/Offered every other year

246 CANCER: SCIENCE AND SOCIETY/LECTURE, DISCUSSION

Focuses on one of the most dreaded diseases in modern society: cancer. Examines the geographic distribution of cancer in this country and the world, factors contributing to its formation, and the biological mechanisms underlying cancer. Concentrates on screening techniques for detecting cancer-causing agents and on methods for assessing and regulating cancer risks and on case studies of selected human carcinogens as well as social and political controversies surrounding this disease. Ms. Brown/Offered every year

247 COMPUTER AND QUANTITATIVE METHODS IN GEOGRAPHY/LECTURE, LABORATORY

Continues development, begun in Geography 110 of computer-based methods in geographical analysis. Focuses on bivariate and multivariate regression, discriminant analysis, factor analysis, log-linear models, and analysis of spatial and temporal data. Includes lab work with PCs, spreadsheets, and SPSS-X statistical software package. Prerequisite: Geography 110. Meets skill requirement for geography majors and graduate students. Mr. Ratick/Offered every year

250 TECHNOLOGY AND ENVIRONMENTAL ASSESSMENT/SEMINAR

See International Development, Community and Environment 352. Mr. Ratick/Offered every year

251 LIMITS OF THE EARTH

See International Development, Community and Environment 30251. Mr. Goble/Offered every year

252 CORPORATE ENVIRONMENTAL MANAGEMENT/LECTURE, DISCUSSION

See Management 252. Mr. Sarkis/Offered periodically

256 RESEARCH SEMINAR IN DYNAMIC ENVIRONMENTAL MODELING

Much environmental assessment, planning, and regulation is now based on dynamical modeling (computer models that simulate pollution transport leading to human exposures and the potential consequences of such exposures over time or which simulate important aspects of ecological systems). The effective use of appropriate models and the critical interpretation of model results are key activities in environmental policy. In this seminar we will survey common applications of models, address key issues in the interpretation of model results, install, test and apply models that have been used in recent public-policy evaluations, and perform some model construction. Basic computer literacy will be assumed and individually performed computer projects will be a substantial portion of the required work, but extensive computer-science study is not a prerequisite. Mr. Goble/Offered every other year

257 ENVIRONMENTAL AND NATURAL RESOURCE ECONOMICS/LECTURE, DISCUSSION

See Economics 257. Ms. Geoghegan/Offered periodically

260 QUANTITATIVE MODELING/LECTURE, DISCUSSION

See International Development 260. Mr. Pontius/Offered every year

261 DECISION METHODS FOR ENVIRONMENTAL MANAGEMENT AND POLICY/LECTURE, DISCUSSION

See International Development, Community and Environment 363. Mr. Ratick/Offered every year

265 TOOLS FOR QUANTITATIVE POLICY ANALYSIS/LECTURE, DISCUSSION

Discusses policy goals that have been advocated for risk-management decision making on environmental and occupational chemical exposures—including equity in the distribu-

tions of risks and benefits, and appropriate priority setting for the efficient use of public and private resources. Students apply quantitative-analysis techniques to risk/policy problems through: relevant sets of categories for analysis, reflecting both value and causal mechanism considerations; mechanistic dynamic modeling of physical/biological processes, analysis of distributions—including but not limited to fitting distributions to data—in order to elucidate both variability and uncertainty; and basic use of spreadsheets. Mr. Hattis/Offered periodically

276 ENVIRONMENTAL LAW/LECTURE, DISCUSSION

A survey course in environmental law, with special emphasis placed on the practical skills necessary to understand and apply environmental laws and regulations. Topics include the history and development of modern environmental law, basic administrative law principles, water-pollution control, wetlands protection, environmental-impact review, solid- and hazardous-waste management, disposal, and site remediation, plus land-use controls and “takings” issues. Covers the major federal environmental statutes, and draws upon Massachusetts law for examples of state and municipal initiatives. Staff/Offered every year

280 URBAN ECOLOGY: CITIES AS ECOSYSTEMS/LECTURE, DISCUSSION

Explores the ecology and physical geography of cities as systems built, inhabited, and managed by people. This class of ecosystem is often neglected except in studies of pollution, yet it is home to many of the world's people and to a surprising number of plant and animal species as well. Readings, lectures, discussion, and written work combine landscape and systems ecology with physical and urban geography to broaden our understanding of city environments, both present and possible. Ms. Rocheleau/Offered periodically

282 MANAGEMENT OF ENVIRONMENTAL POLLUTANTS/SEMINAR

Studies approaches to regulating hazardous chemicals in air, water and food. The course is built around the three general types of inter-

ventions that have been practiced by the regulatory agencies over the last three decades: shifting to safer technologies; issuing licenses to pollute in the form of industrial emission permits; and setting standards for air, water, and food contaminants. The scientific controversies in setting standards and issuing permits are presented vis-à-vis the legislative mandates, the need for benefit-cost accounting, and the scientific uncertainty. The strengths and weaknesses of command-and-control system versus the incentive-based system with regard to industrial enterprises are also discussed.

Emphasizes recent efforts to decrease government involvement in corporate environmental management and to shift towards an incentive-based regulatory system. While focus is on public policies in the United States, international comparisons with western European and eastern European countries are included. The course has a seminar format, with weekly student presentations and class discussions.

Ms. Brown/Offered every year

284 ENVIRONMENT AND DEVELOPMENT IN THE MIDDLE EAST AND NORTH AFRICA/LECTURE, DISCUSSION

See Geography 284. Mr. Johnson/Offered every other year

286 SUSTAINABILITY, INSTITUTIONS AND POLICY MAKING/SEMINAR

The globalization of commerce, increasing access to information, and growing threats to the earth's ecosystems require new ways of organizing the society and the marketplace in order to pursue environmental sustainability. Some call it “Natural Capitalism.” This advanced seminar examines the roles of major types of institutions in implementing the agenda for sustainable development: the business sector, government, nongovernmental organizations, and financial institutions. We discuss matching of policy instruments with policy objectives, including management of natural resources, technological innovation, pollution prevention, and system innovation. We exam-

ine partnerships among the key institutions as the possible vehicle for change. International considerations are included. The readings consist of both theoretical works and empirical case analyses. Ms. Brown/Offered every year

290 CAPSTONE RESEARCH/SEMINAR

A required course for senior environmental science and policy majors, this seminar offers an opportunity to integrate the strands of the environmental science and policy major. The product will be a completed research project, a research proposal for an honors project, or a research proposal for a master's thesis. Specific topics for investigation are chosen largely on the basis of student interest from a broad array including global environment threats, energy and other resource issues, community brown-fields, and technological risk assessment and management. Unlike a regular course, student presentations constitute a major portion of class meetings, with the instructor as a facilitator of discussion and as a general resource for the group. Students must be seniors or second-semester juniors and must have completed a substantial fraction of their major requirements. Mr. Goble/Offered every year

296 GIS AND LOCAL PLANNING/SEMINAR

See International Development 296. Mr. Marcano/Offered every semester

297 HONORS THESIS

298 INTERNSHIPS

Contact the IDCE office for internship proposal form. Staff/Offered every semester

299 INDEPENDENT STUDY

Staff/Offered every year

FOREIGN LANGUAGES AND LITERATURES

Department Faculty

Michael K. Spingler, Ph.D., chair: French theater and film, comparative drama, translation
María Acosta Cruz, Ph.D.: 19th- and 20th-century Spanish-American culture, comparative literature

Belén Atienza, Ph.D.: Spanish language and literature

Paul F. Burke Jr., Ph.D.: Greek and Latin language and literature, classical mythology, classical art and archaeology

Carol C. D'Lugo, Ph.D.: Spanish-American narrative, translation

Marvin A. D'Lugo, Ph.D.: Hispanic literature and film, Latino narrative

William Ferguson, Ph.D.: Spanish Golden-Age literature, 20th-century Hispanic literature

Everett Fox, Ph.D.: Hebrew Bible, Midrash, Jewish ritual and folklore, classical Jewish thought

Beth W. Gale, Ph.D.: 19th- and 20th-century French literature, women and the novel, cultural studies, the fairy tale

Kenneth Hughes, Ph.D.: 19th- and 20th-century European literature, comparative literature, literary theory

Dorothy Kaufmann, Ph.D.: French literature, feminism and women writers, autobiography, French and Francophone cultural studies

Walter Schatzberg, Ph.D.: Age of Goethe, German expressionism in literature and the arts, German cinema, relations between literature and science

Daniel Jiro Tanaka, Ph.D.: German language and literature

Adjunct Faculty

Marcia Butzel, Ph.D.: French and Italian film, cultural studies, French narrative

Part-time Faculty

Tzilla Barone, B.A.: Hebrew language and literature

Constance M. Montross, Ph.D.: Spanish language and literature

Catherine C. Quick Spingler, M.A.: *French language and literature*
Ivy Sun, M.A.: *Latin*
Alice Valentine, M.A.: *Japanese language and literature*
Man-Ying Wu, M.A.: *Chinese*

Emeriti

Raymond E. Barbera, Ph.D.: *Romance languages*

Michiko Aoki, Ph.D.: *Japanese language and culture*

Hartmut Kaiser, Ph.D.: *German language and literature*

The Foreign Languages and Literatures Department is part of the Alice Coonley Higgins School of Humanities.

Undergraduate Program

The program investigates how peoples and nations express themselves through language, literature and other cultural phenomena. The interdisciplinary spirit of the program illuminates the relationship between national literatures and other areas of the humanities and social sciences.

The major is offered in French and Spanish. It is also possible, at the department's discretion, to major in more than one language (the combined foreign languages major). A student-designed major in German is also available (see page 7).

There are majors available in comparative literature and ancient civilization as well. Though based in foreign languages and literatures, these two programs—together with the minor offered by ancient civilization—are described elsewhere in the catalog under their own headings.

Major Requirements

1. Eight courses above the intermediate level.

In French, major credit is given for courses above French 106; in German, above German 102; in Spanish, above Spanish 127.

The eight required courses include:

- a. an introductory-level course in literature;
- b. a course in culture criticism;

- c. for Spanish majors, an advanced grammar and composition course (Spanish 237 or the equivalent); for French majors, French 136 or 137;
- d. the Advanced Topics course (297);
- e. at least two courses taken in a Clark-sponsored or Clark-approved study-abroad program. (This requirement may be waived in special circumstances.)

At least four of the eight required courses must be taken in residence at the Worcester campus.

2. Five related courses, at least one of which must be Comparative Literature 130, The National Imagination.

These five related courses are to be selected with the major adviser. They might be courses in other languages and literatures, or in subjects further afield that enrich the student's understanding of core material. When the major program is concentrated in one language, a reading knowledge of a second language is strongly recommended. Only course grades of C or better may be counted toward the major.

Requirements for the Combined Foreign Languages Major

- 1. Five courses in each of two languages, chosen from the list of courses that would count toward a single-language major (German 103 and above; French 120 and above; Spanish 131 and above);
- 2. The Advanced Topics course (capstone course, numbered 297.7) in at least one of the two language areas chosen;
- 3. One course in Comparative Literature, normally the core course (CMLT 130) required of all our majors;
- 4. Four related courses, as determined in consultation with the student's major adviser;
- 5. At least two units of study abroad in a culture in which one of the target languages is spoken. Ordinarily, courses taken abroad may be counted toward the five required courses in each language area.

The Minor in Foreign Languages and Literatures

A minor program in foreign languages and literatures is offered in French, German, and Spanish.

To qualify, a student must complete six courses in the chosen discipline at a level of difficulty that would count toward a major in that field. Some courses may be replaced by courses outside the field of study but related to it (a course in Latin-American history, for example, might be counted as a related course toward a minor in Spanish). Advanced Topics courses required of majors (French 297, German 297, and Spanish 297) are not required for the minor, but they may be taken for minor credit with permission of the instructor. Courses taken in study-abroad programs may be counted toward the minor, at the department's discretion. Students must declare their intention of fulfilling a minor by the end of the junior year. Only course grades of C or better may be counted toward the minor.

The Adviser System

Advisers are faculty in appropriate disciplines who are assigned to students when their major or minor is declared. Students and advisers should meet regularly. Advisers suggest a course of study, discuss and approve related courses, and, for majors, identify areas of special interest that could lead to an honors project.

Honors in Foreign Languages and Literatures (Majors Only)

Majors who have done well in their Advanced Topics course (297) are invited to do an honors project in the senior year. Students wishing to work for honors should: 1) determine a suitable topic, in consultation with the major adviser, 2) find a faculty supervisor in the appropriate area of study (it may or may not be the major adviser), and 3) secure the permission of the department chair. A second faculty reader will participate in the final evaluation of the honors project.

Applicants for honors should ordinarily ask the chair's permission before the end of the

junior year. (Extensions of this deadline may be granted in special circumstances.) The honors project supervisor and the student are expected to agree on a work schedule, but in any case a preliminary draft of the project must be completed by the first Monday in April. The final version is due one week before the last day of classes.

An honors project counts as one unit of credit.

Study Abroad

Information on study-abroad programs in France, Germany, and Spain is available at Clark's Office of Study Abroad Programs.

Advanced Courses

Advanced courses, listed by area of concentration:

Language Courses

- French 120 Ways of Writing, Ways of Speaking
- French 145 Translation Workshop
- German 131 Spoken and Written German
- Spanish 127 Practice in Oral and Written Spanish
- Spanish 141 Spanish Translation Workshop
- Spanish 237 Advanced Oral and Written Spanish

Studies in Literature

- French 131 Readings in French Literature
- French 210 Coming of Age in the French Novel
- French 275 Sartre, Beauvoir, Camus
- German 140 Modern German Prose
- German 156 The Modern German Short Story
- Spanish 131 Readings in Hispanic Literatures
- Spanish 236 Women in Hispanic Literature
- Spanish 238 Hispanic Literature of Political Commitment
- Spanish 239 Hispanic Caribbean Fiction
- Spanish 242 The Latin-American Novel
- Spanish 245 Hispanic-American Short Story
- Spanish 260 The Age of Cervantes

Studies in Culture

- French 136/137 Studies in French Culture
- French 240 Paris in Arts and Literature
- French 246 History, Writing, and Ideology: France since 1940
- French 249 The French-speaking World
- German 112 The Fairy Tales of the Brothers Grimm
- German 134 Germany and the European Union
- German 168 Music in German Literature and Thought
- German 188 The Culture of the Weimar Republic in Literature, Film, and the Arts
- German 197 The Faust Theme in Literature and Music
- Spanish 117 Field Work in the Hispanic Community
- Spanish 133 Studies in Hispanic Culture
- Spanish 243 Latin-American Essay and Thought

Studies in Film and Theater

- Spanish 134 Latinos in Literature and the Visual Media
- French 160 French Culture Seen Through Film: Jean Renoir
- French 165 French Play Production
- French 263 History of French Cinema
- French 267 French Cinema: The New Wave
- French 270 The Modern French Theater: Experiments of the Avant-Garde
- German 150 The New German Cinema
- Spanish 140 Spanish Dramatic Expression: Play Production
- Spanish 246 Studies in Spanish Cinema
- Spanish 248 Studies in Latin-American Cinema
- Spanish 249 Studies in Hispanic Cinemas

Courses

A. Chinese

CHINESE 101-102 ELEMENTARY CHINESE/LECTURE, DISCUSSION

Introduces the Chinese language (standard Mandarin) for students with no background in

Chinese. Focus is on all four language skills—speaking, listening, reading and writing—including the writing of Chinese characters. No credit is given for Chinese 101 without successful completion of Chinese 102. Staff/Offered every year

CHINESE 103-104 INTERMEDIATE CHINESE/LECTURE, DISCUSSION

Covers the basic grammatical structures employed in modern vernacular Chinese and sufficient vocabulary and cultural background to engage comfortably in the most common types of social interaction in today's China and Taiwan. By the end of Chinese 104, students will possess the necessary tools to read essays and articles on current social issues, view programs and films in Mandarin, and discuss the content, in both written and oral form. Prerequisite: Chinese 102 or permission. (Completion of Chinese 103 is a prerequisite for participation in Clark's study-abroad program in Beijing.) Staff/Offered every year

B. Classics

CLASSICS 120 THE EPIC JOURNEY/FIRST-YEAR SEMINAR

Surveys examples of ancient epic literature, beginning with the Sumerian Epic of Gilgamesh and the Book of Exodus. Other texts studied include Homer's *Iliad* and *Odyssey* and Vergil's *Aeneid*, all in English translation. The unifying idea of the course will be the concept of the hero and of heroic action in the various cultures of the ancient world. Mr. Burke/Offered every other year

GREEK 101-102 INTRODUCTORY GREEK/LECTURE, DISCUSSION

Introduces the language of classical Greece. Covers the grammar and syntax of the Ancient Greek. Students read Ancient Greek texts including philosophical works such as Plato's "Apology of Socrates and Crito," and selections from Homer, Herodotus, and the New Testament. No credit is given for Greek 101 without successful completion of Greek 102. Mr. Burke/Offered every other year

LATIN 101-102 INTRODUCTORY LATIN/LECTURE, DISCUSSION

Introduction to the language of Catullus, Vergil, Horace, et al., through reading, oral and written exercises in grammar and syntax. Students will work in small groups and on a play performed on or around the Ides of March when they will also experience Roman cuisine. Ms. Sun/Offered every other year.

C. French

101-102 ELEMENTARY FRENCH/LECTURE, DISCUSSION

For students with no background in French or up to two years of high-school French. Students work on all four language skills—listening, speaking, reading, writing—to develop an active knowledge of French. Students participate in weekly conversation groups with a French teaching assistant and work individually in the language lab. No credit is given for French 101 without successful completion of French 102. Ms. Spingler/Offered every year

103 ELEMENTARY FRENCH: INTENSIVE/ LECTURE, DISCUSSION

Entry-level course for students with more than two years of high-school French or the equivalent but who are not yet ready for intermediate-level work. Emphasizes active communication through speaking and writing. There are weekly discussion groups with a French teaching assistant and individual laboratory work. Ms. Spingler/Offered every semester

105 INTERMEDIATE FRENCH I/LECTURE, DISCUSSION

Consolidates basic skills for students who have completed French 102 or the equivalent. Emphasizes communicative proficiency: the development of oral and written skills, self-expression, and cultural insight. There are weekly conversation groups with a French teaching assistant. Prerequisite: French 102, 103, or equivalent determined by placement exam. Staff/Offered every semester

106 INTERMEDIATE FRENCH II/LECTURE, DISCUSSION

Bridges basic skills courses and advanced courses in language, literature, and culture. Emphasizes literary and cultural texts. Develops ability to articulate ideas and to participate in meaningful discussions in French. Grammar review is based on specific needs of the group as revealed by class work and compositions. There are weekly conversation groups with a native French speaker. Prerequisite: French 105 or equivalent determined by placement exam. Staff/Offered every semester

108 THE THEATER OF REVOLT IN MODERN FRANCE

This seminar studies the various avant-garde and experimental movements in French Theater from 1890 to 1970 with particular focus upon the relationship between these movements and the artistic, cultural, and political life of the early and mid 20th century. The term revolt refers both to an aesthetic and an ideological phenomenon. We examine how a number of playwrights sought to re-invent theatrical form in order to challenge conventional modes of representing the world. Movements studied include Cubism, Surrealism, Existentialism, and the Theater of the Absurd. We will also view some avant-garde films by Luis Buñuel, and Jean Cocteau. Playwrights studied may include Alfred Jarry, Guillaume Apollinaire, Jean Cocteau, Jean-Paul Sartre, Albert Camus, Roger Vitrac, Boris Vian, and Eugène Ionesco. Mr. Spingler/Offered periodically

112 FAIRY TALES OF THE WORLD/LECTURE, DISCUSSION

See Comparative Literature 112. Ms. Gale/Offered periodically

120 WAYS OF WRITING, WAYS OF SPEAKING/LECTURE, DISCUSSION

This third-year level course increases communicative competence in writing and speaking French. Models taken from French and Franco-phone texts are used as a basis for critical expression. Students improve verbal skills

through class discussion, conversation groups and an oral presentation. Prerequisite: French 106 or equivalent determined by placement exam. Staff/Offered every semester

130 THE NATIONAL IMAGINATION

See Comparative Literature 130. Staff/Offered every year

131 READINGS IN FRENCH LITERATURE/LECTURE, DISCUSSION

Introduces analysis and understanding of French literary texts and their visions of the world and of the self. Focuses on literary structures and conventions that form the basis of different genres through history. Readings include a wide range of complete texts in fiction, theater, and poetry. Prerequisite: French 120 or permission. Staff/Offered every year

136 STUDIES IN THE EVOLUTION OF FRENCH CULTURE/LECTURE, DISCUSSION

Traditional French values, myths, and social institutions in their relationship to changing cultural and social realities. We study Louis XIV's Gardens of Versailles and Napoleon III's redesigning of Paris as cultural texts that represent dominant political and social ideologies. Prerequisite: French 120 or permission. Mr. Spingler/Offered every other year

137 STUDIES IN CONTEMPORARY FRENCH CULTURE/LECTURE, DISCUSSION

Questions of cultural identity and cultural differences, with particular attention to France and foreigners, Franco-American (dis)connections, and issues of immigration. Prerequisite: French 120 or permission. Ms. Kaufmann/Offered every other year

145 TRANSLATION WORKSHOP/LECTURE, DISCUSSION

Students work on various texts (advertising, journalism, theater, film scripts, and fiction) exploring theory, techniques, and problems of translation. Emphasizes translation from French into English and stresses lexical and syntactic aspects of comparative style. Students become acquainted with the variety of texts an

American professional translator might expect to work on, including film subtitling. Prerequisite: French 120 or above or permission. Mr. Spingler/Offered periodically

160 FRENCH CULTURE SEEN THROUGH FILM: JEAN RENOIR/LECTURE, DISCUSSION

Analyzes cinematic aesthetic and narrative strategies of the films of Jean Renoir, a leading figure in French cinema. Traces development of his art and focuses particularly on the way two works, "The Grand Illusion" and "The Rules of the Game," explore the historical problem of a continuing presence of prerevolution values and myths within 20th-century French republican culture. Taught in English and French sections. Prerequisite for students receiving French credit: one course above 130 or permission. Mr. Spingler/Offered periodically

165 FRENCH PLAY PRODUCTION/LECTURE, DISCUSSION

A workshop course using scene study to provide direct experience of the theatrical synthesis within which play, actor, and spectator operate. Emphasizes vocal delivery through intensive work on diction, phrasing, rhythm, and gesture. Explores various approaches to the play's staging. Typically one playwright is studied and topics of theatrical practice are combined with theoretical issues concerning the social background and artistic conventions of the playwright's period. Playwrights studied may be: Molière, Marivaux, Ionesco, Beckett. Conducted in French. Prerequisite: one French course above 130 or permission. Mr. Spingler/Offered every other year

170 THE COMIC TRADITION/LECTURE, DISCUSSION

Traces the tradition of self-referential theater in France and explores the techniques of the play-within-the-play. The course also examines how playwrights parody and subvert the dominant theatrical conventions and styles of their time, ranging from 17th-century comedy through contemporary-absurdist and avant-

garde theater. Playwrights studied include Molière, Marivaux, Musset, Feydeau, Anouilh, Ionesco, Genet and Beckett. Mr. Springler/Offered periodically

210 COMING OF AGE IN THE FRENCH NOVEL/LECTURE, DISCUSSION

A close look at youth and the construction of adult identity in the French novel of the 19th and 20th centuries. Discussion of instruction vs. education, family structures, friendship, love relationships and sexuality, gender roles and society, and the transformation of narrative forms. Authors may include Balzac, Sand, Zola, Rachilde, Colette, Gide, and Duras. Taught in French. Prerequisite: 131, 136 or above or permission. Staff/Offered periodically

215 20TH-CENTURY FRENCH AND FRANCOPHONE WOMEN WRITERS/LECTURE, DISCUSSION

See Comparative Literature 215. Taught in English. Ms. Kaufmann/Offered periodically

225 THE NAZI OCCUPATION IN FRENCH LITERATURE AND FILM/SEMINAR, DISCUSSION

Explores questions of resistance, accommodation, and collaboration in the context of the traumatic defeat of France in 1940 and its occupation by Nazi Germany. Readings include texts by Jean-Paul Sartre, Albert Camus and Margerite Duras. Films include "Au revoir les enfants," "A Woman's Story," and "Weapons of the Spirit." Taught in English. Ms. Kaufmann/Offered periodically

240 PARIS IN ARTS AND LITERATURE/SEMINAR

Investigates changing urban consciousness of 19th-century France by examining problems of representing the city through urban planning (architecture and urban landscape), and through visual representation of Paris by two painters, Caillebotte and Manet, and the literary representation of Paris by two poets, Baudelaire and Rimbaud. Given in French. Prerequisite: two French courses above 130 or permission. Mr. Spingler/Offered periodically

241 MYSTERIES OF THE CITY/LECTURE, DISCUSSION

Study 19th-century France origins of the myth of the city as a place of mystery, enchantment and danger. Starting with Eugène Sue's *Mysteries of Paris*, the course traces narrative and poetic representations of the city as instances of the melodramatic imagination. Explore the roots of the modern roman and film noir in such texts as Zola's *Thérèse Raquin*. Authors studied include Eugene Sue, Victor Hugo, Honoré de Balzac, Charles Baudelaire and Emile Zola and some 20th-century cinematic representations of 19th-century Paris. Conducted in French. Mr. Springler/Offered periodically.

249 THE FRENCH-SPEAKING WORLD/ LECTURE, DISCUSSION

An interdisciplinary analysis of questions of cultural identity as they have been elaborated by Francophone writers during the colonial and particularly the post-Colonial period, with special emphasis on French-speaking Africa, the Antilles, and the Maghreb. Through literature, social texts and film we explore such issues as tradition and modernity, conflicts between (and within) indigenous and French social codes; the Algerian war and its legacy; women and Islam. Prerequisite: two French courses above 130 or permission. Ms. Kaufmann/Offered periodically

263 HISTORY OF FRENCH CINEMA/ LECTURE, DISCUSSION

See Screen Studies 263. Ms. Butzel/Offered periodically

267 FRENCH CINEMA: THE NEW WAVE/ LECTURE, DISCUSSION

Focuses primarily on the films of Jean-Luc Godard, which profoundly changed the look of contemporary cinema including American films. Also includes films by François Truffaut, Louis Malle, and Claude Chabrol, but primarily explores how Godard's radical transformations of film form reflected the crisis in cultural and political consciousness in France in the

1960s. Taught in English. Prerequisite for French credit: two courses above 130 or permission. Mr. Spingler/Offered periodically

270 THE MODERN FRENCH THEATER: EXPERIMENTS OF THE AVANT-GARDE/LECTURE, DISCUSSION

Studies the origins and developments of the avant-garde theater of France with particular emphasis on the staging of the plays. Focuses on the theater since 1950, especially works by Ionesco, Beckett, Genet, and Arrabal. Explores affinities between these playwrights and Dada and Surrealist movements and studies three precursors: Jarry, Ghelderode, and Artaud. Conducted in French. Prerequisite: two courses above 130 or permission. Mr. Spingler/Offered periodically

275 SARTRE, BEAUVOIR, CAMUS/LECTURE, DISCUSSION

A study of representative literary works of each writer in the context of his or her philosophical and political theories. We explore such questions as freedom and existential choice, the absurd, ideologies of revolt, and the aesthetics and ethics of *littérature engagée*. Ms. Kaufmann/Offered periodically

297 ADVANCED TOPICS/SEMINAR

A required capstone course for senior majors. Open to advanced students with permission of instructor. Modified versions of courses above the 200 level are offered periodically for 297 credit. Ms. Gale, Ms. Kaufmann, Mr. Spingler/Offered every year

COURSES OFFERED AT L'UNIVERSITE DE BOURGOGNE, DIJON, FRANCE

Students who participate in Clark's study-abroad program at the Université de Bourgogne may take up to eight course units in French and other fields. Courses are offered both in the Faculté des Lettres and the Faculté de Droit and at the Centre International d'Etudes Françaises (CIEF). The following is a representative list of courses that have been offered in the past:

Faculté de Lettres et Faculté de Droit

Thème et Version – Translation Workshop
French-English and English-French
Littérature française – Romantisme et Modernité
Littérature française – L'Univers balzacien
Littérature française – Le Roman au XVIIe et XVIIIe siècles
Littérature comparée – Paris entre les deux guerres
Littérature comparée – Images de la femme dans la littérature française
Histoire de L'Art médiéval
Histoire de la Bourgogne médiévale
Histoire économique et sociale
Initiation à l'histoire rurale
Institutions politiques comparées
Analyse de la vie politique
Politiques européennes

Centre Internationale d'Etudes françaises

Composition et expression écrite – Advanced written French
Grammaire
Stylistique
La littérature et ses genres
Civilisation: La France contemporaine
Histoire de l'art: La peinture française au milieu du XIXe siècle
Culture et musique
Cinéma
Théâtre contemporain
Les philosophies de l'existence en France
Histoire de la Troisième République
Français économique et commerciale

D. German

101-102 INTRODUCTORY GERMAN/ LECTURE, DISCUSSION

Imparts an active command of German. Combines grammar, oral practice, and readings in literary and expository prose. There are weekly conversation groups with a native German speaker and individual laboratory work. No credit is given for German 101 without successful completion of German 102. Mr. Tanaka/Offered every year

103 INTERMEDIATE GERMAN I/LECTURE, DISCUSSION

Consolidates basic skills for students who have completed German 102 or the equivalent. Reviews grammar, reading, and discussion of selections from newspapers and magazines. Develops skills in oral and written expression. There are weekly conversation groups with a native German speaker and individual laboratory work. Prerequisite: German 102 or equivalent. Mr. Tanaka/Offered every year

104 INTERMEDIATE GERMAN II/ LECTURE, DISCUSSION

Bridges basic skills courses and advanced courses in language, literature, and culture. Reviews grammar and studies literary works on themes of contemporary German culture. Develops the ability to articulate ideas and to participate in discussions in German. There are weekly conversation groups with a native German speaker as well as individual laboratory work. Prerequisite: German 103 or equivalent. Mr. Tanaka/Offered every year

130 THE NATIONAL IMAGINATION

See Comparative Literature 130. Staff/Offered every year

131 SPOKEN AND WRITTEN GERMAN/LECTURE, DISCUSSION

This third-year course strengthens speech habits, increases vocabulary, and improves written expression. Literary and journalistic texts serve as a basis for discussion of contemporary issues. Weekly written assignments. Prerequisite: German 104 or equivalent. Mr. Hughes/Offered every year

134 GERMANY AND THE EUROPEAN UNION/LECTURE, DISCUSSION

Explores issues surrounding the reunification of Germany and its association with other European states. Students select and analyze (in German) articles and other documents on social, cultural, political and economic topics from sources in government, the independent media, etc. Prerequisite: German 131 or equivalent; basic Internet familiarity. Mr. Hughes/Offered periodically

140 MODERN GERMAN PROSE/LECTURE, DISCUSSION

Studies prose by Kafka, Hesse, Mann, Böll, Borchert and Walser; includes discussions, oral and short written reports in German. Prerequisite: German 131 or equivalent. Mr. Hughes/Offered periodically

156 THE MODERN GERMAN SHORT STORY/LECTURE, DISCUSSION

After years of isolation and stagnation during and after the Nazi period, young writers, anxious to establish new values and connect with international literary developments, discovered the English and American short story and adapted it to historical, social, and cultural conditions in Germany. The short story became the most important literary form. This course reviews leading modern German writers, emphasizing thematic variety and structural complexities. Prerequisite: German 131 or equivalent. Mr. Hughes/Offered periodically

206 SPECIAL TOPICS IN GERMAN

Offered for variable credit. Staff/Offered every semester

GERMAN LITERATURE COURSES CONDUCTED IN ENGLISH

188 THE CULTURE OF THE WEIMAR REPUBLIC IN LITERATURE, FILM, AND THE ARTS/LECTURE, DISCUSSION

Explores modernism and modernity in German literature and art during the Weimar Republic (1918-1933). Studies novels, plays, films, and paintings within the framework of cultural and political developments in Germany from the turn of the century to the rise of National Socialism. Mr. Schatzberg/ Offered every other year

297, SEC.7 ADVANCED TOPICS TUTORIAL IN GERMAN LITERATURE/LECTURE, DISCUSSION

Determined by the needs and interests of individual students. Ordinarily taken by senior German majors as a capstone experience. Other advanced students of German language and literature may be invited to participate in the tutorials as space permits. Staff/Offered every year

E. Hebrew

HEBREW 101-102 ELEMENTARY HEBREW/LECTURE, DISCUSSION*

Modern conversational Hebrew. Emphasizes speaking, reading, writing, and listening skills. Acquisition of vocabulary and basic grammar. Two class meetings per week, one hour of mandatory drill sessions led by a teaching assistant, and individual work in the language laboratory. No credit is given for Hebrew 101 until successful completion of Hebrew 102.

Ms. Barone/Offered every year

HEBREW 102 ELEMENTARY HEBREW/LECTURE, DISCUSSION *

* Hebrew 102 will be a continuation of Hebrew 101 offered also for students who placed at that level during placements exams.

HEBREW 103 INTERMEDIATE HEBREW/LECTURE, DISCUSSION

Modern conversational Hebrew. Emphasis on speaking, reading, writing, and listening skills. Enrichment and reinforcement of verbal expressions and grammatical structures. Two class meetings per week, one hour of mandatory drill sessions led by a teaching assistant, and individual work in the language laboratory. Hebrew 102 or the equivalent required.

Ms. Barone/Offered every year

HEBREW 104 INTERMEDIATE/ADVANCED HEBREW/LECTURE, DISCUSSION

Surveys significant Hebrew texts, including literature and newspapers, focusing on the Holocaust through literature. Enrichment of verbal and written expression and grammatical structures. Two class meetings per week, one hour of drill sessions, and individual work in the language laboratory. Hebrew 103 or equivalent required. Ms. Barone/Offered every year.

HEBREW 105 ADVANCED HEBREW/LECTURE, DISCUSSION

For students who have studied the basics of Hebrew grammar. Reinforces conversational and grammatical skills through discussion, composition, and reading Hebrew literature and newspapers. Literary readings focus on Israel or the development of the language.

Prerequisite: Hebrew 104 or the equivalent. Ms. Barone/Offered every year

HEBREW 297, SEC. 6 SPECIAL TOPICS IN HEBREW/DISCUSSION

Presents modern Hebrew literature, predominantly in the original language. Through poetry, short fiction, and current journalism, the course examines major issues in Israeli culture: the early immigrant experience, the Holocaust, and the Arab-Israeli conflict. Students enrich their verbal and written expression and study increasingly complex grammatical structures. Ms. Barone/Offered every year

F. Japanese

JAPANESE 101-102 ELEMENTARY JAPANESE/LECTURE, DISCUSSION

Introduces the Japanese language, emphasizing speaking, listening, reading, and writing skills. No credit is given for Japanese 101 without successful completion of Japanese 102. Ms. Valentine/Offered every year

JAPANESE 103-104 INTERMEDIATE JAPANESE/LECTURE, DISCUSSION

A continuation of first-year Japanese, emphasizing learning kanji, mastering more complex grammatical forms, and increasing fluency. Prerequisite: Japanese 102 or permission. Staff/Offered every year

JAPANESE 105-106 ADVANCED JAPANESE/LECTURE, DISCUSSION

Primary emphasis is on building critical vocabulary and understanding Japanese behavior patterns. Prerequisite: permission. Staff/Offered periodically

JAPANESE 180 JAPANESE CULTURE AND LITERATURE IN TRANSLATION/LECTURE, DISCUSSION

The course is designed to offer students a foundation for understanding Japanese culture and its values, which are critically different from those of the West. It explores in historical context the ways in which Japanese society has been formed and investigates how it has sustained its values in the modern world. Taught in English. Ms. Valentine/Offered periodically

G. Russian

RUSSIAN LITERATURE IN ENGLISH TRANSLATION

RUSSIAN 220 THE RUSSIAN NOVEL IN THE 19TH CENTURY/LECTURE, DISCUSSION

Examines representative great Russian works of the last century in English translation, which are considered both as works of literary art and as social and historical artifacts. Readings include Tolstoy's *Anna Karenina*, Turgenev's *Fathers and Children*, and representative works of Pushkin, Gogol, Dostoevsky, and Chekhov. Mr. Hughes/Offered every other year

H. Spanish

The Spanish program is based on a three-year rotation. Advanced courses listed as offered periodically are generally available at least once every three years.

101-102 ELEMENTARY SPANISH/DISCUSSION

For students with two years or less of the language, this course develops basic skills in speaking, reading, and writing Spanish. Meets for three hours per week; regular class assignments are supplemented by individual work in the Language Arts Resource Center (LARC). No credit is given for Spanish 101 without successful completion of Spanish 102. Ms. Acosta Cruz, Ms. Montross, Staff/Offered every year

103 ELEMENTARY SPANISH: INTENSIVE/ LECTURE, DISCUSSION

An accelerated elementary course, intended for students who have had more than two years of high-school Spanish but who do not yet qualify for intermediate-level courses. Three hours per week, plus individual work in the Language Arts Resource Center. Placement by the Department required. Ms. Atienza/Offered every year

105 INTERMEDIATE SPANISH I/LECTURE, DISCUSSION

Integrates the essential aspects of Spanish in a structured manner, while at the same time reviewing grammar and enhancing skills in

reading, writing, and conversation. Also develops awareness and appreciation of Hispanic cultures. Prerequisite: successful completion of 101-102, 103 or placement by the department. Discussion session required. Ms. Acosta Cruz, Ms. D'Lugo, Staff/Offered every semester.

106 INTERMEDIATE SPANISH II/LECTURE, DISCUSSION

Normally taken after 105, Spanish 106 further strengthens skills in the language through grammar reviews, readings on Hispanic themes and class discussions. Emphasis is on activities in reading, writing, speaking, and conversational understanding as a preparation for more advanced work. Prerequisite: successful completion of 105 or placement by the department. Discussion session required. Ms. Acosta Cruz, Ms. Montross, Staff/Offered every semester.

117 FIELD WORK IN THE LATINO COMMUNITY

Offers an opportunity to work in an agency or project serving the Latino community in Worcester (the bilingual school program, Casa de la Comunidad, Worcester Legal Services, etc.). Advisers supervise the student work. Students keep a journal on the experience in which they examine language, culture and related problems of the bilingual community. Students read works of Latino literature and write short papers in Spanish. Weekly meetings with instructor. Prerequisites: proficiency in Spanish; successful completion of course work in the field or fields related to the specific project area; permission of instructor. Offered for credit, but is not graded. Ms. Montross/ Offered every semester.

127 PRACTICE IN ORAL AND WRITTEN SPANISH/LECTURE, DISCUSSION

A transitional course between intermediate Spanish and the upper-level offerings. Develops fluency and sophistication in spoken and written Spanish. Emphasizes practice in conversation, composition, and selected grammar review. Prerequisite: Spanish 106 or by permission. Ms. D'Lugo, Mr. Ferguson, Staff/Offered every semester

130 THE NATIONAL IMAGINATION

See Comparative Literature 130. Staff/Offered every year

131 READINGS IN HISPANIC

LITERATURES/LECTURE, DISCUSSION

Introduces modern Hispanic narrative, lyric, and dramatic literature. Studies works by authors of Spain and Latin America and their literary, social, cultural, and political context. Readings illuminate such themes as the idea of cultural continuity and modernity, notions of norm and deviance in the Hispanic community, and national identity. Since course content is variable, students may request permission to take the class twice. Conducted in Spanish. Prerequisite: Spanish 127, or by permission. Required for majors. Ms. D'Lugo, Mr. D'Lugo, Mr. Ferguson, Ms. Acosta Cruz/Offered every semester

133 STUDIES IN HISPANIC CULTURE/LECTURE, DISCUSSION

A third-year course introducing students to the diversity of Hispanic culture through literature, history, the arts, Internet, and visual media.

Focuses on one or two of the following national cultures: Chile, Cuba, Mexico, Puerto Rico, Spain, Argentina. Conducted in Spanish.

Prerequisite: Spanish 127 or permission.

Required for majors. Ms. Acosta Cruz,

Ms. D'Lugo, Mr. D'Lugo, Mr. Ferguson/

Offered periodically

Studies in Culture

134 LATINO LITERATURE AND MEDIA

Explores the variety of expressions of Latino identity as a hybrid formation within U.S. culture of the last half century. Unlike traditional Spanish-language literature, which is historically formed and rooted within a Hispanic national community, Latino culture generally functions between and around cultures. It is a culture of migration, assimilation, resistance to the melting pot, as well as a unique expression of a new ethnicity in formation. It expresses, among others, the identity of Puerto Rican-

Americans, Cuban-Americans, and Mexican-Americans and that of other Spanish speakers living in the United States. The objective of the course is to explore the variety of efforts to define Latino culture in the United States through literary and cinematic practices as well as through political and cultural writings. Conducted in English. No required prerequisites. Not offered to first-year students. Spanish credit may be available. Ms. Acosta Cruz, Mr. M. D'Lugo/Offered periodically

140 SPANISH DRAMATIC EXPRESSION: PLAY PRODUCTION/LECTURE, DISCUSSION

Acquaints students with the rhythms, intonations, and gestures typical of contemporary spoken Spanish. Through study and presentation of two or more contemporary dramatic works, students gain practical experience in linguistic and cultural skills. Although some consideration is given to the texts as literature, the course is primarily a workshop in advanced oral Spanish. Prerequisite: Spanish 127.

Staff/Offered periodically

141 SPANISH TRANSLATION WORKSHOP/LECTURE, DISCUSSION

Introduces students to the basic issues involved in translation including considerations of cultural difference, language equivalencies, translation loss, and ways to approach the source text. Among the texts translated are fragments of prose fiction, songs, magazine ads, product instructions, editorials, and movie dialogue (subtitles). Prerequisite: Spanish 131 or permission. Ms. D'Lugo/Offered periodically

236 WOMEN IN HISPANIC LITERATURE/LECTURE, DISCUSSION

Topics include alienation with women's "culture," identity, family structure, violence against women, and women in the national imagination. Readings are from the Spanish and Latin-American tradition. Conducted in Spanish or English. By permission only. Ms. D'Lugo, Staff/Offered periodically

237 ADVANCED ORAL AND WRITTEN SPANISH/LECTURE, DISCUSSION

An advanced language course offering a sophisticated review of grammar with exercises in composition, vocabulary, pronunciation, and intonation. Conducted in Spanish. By permission only. Required for majors. Ms. Acosta Cruz/Offered periodically

238 HISPANIC LITERATURE OF POLITICAL COMMITMENT/LECTURE, DISCUSSION

Studies the creative writer's position amidst 20th-century revolutionary change. Writers discussed include Pablo Neruda, César Vallejo, Ernesto Cardenal, Francisco Ayala, and Miguel Hernández; Cuban writers and poets in their sometimes ambiguous relationship to their country's revolution; the writers of the Chicano movement and the dream of Aztlán; and Puerto Rican authors, both on the mainland and on their native island. Conducted in Spanish. Prerequisite: Spanish 131 or permission. Mr. Ferguson/Offered periodically

239 HISPANIC CARIBBEAN FICTION/ LECTURE, DISCUSSION

Examines literature, arts, and media in Spanish language countries in the Caribbean Basin. Topics include: Afro-Antillean culture movements, women's literature, hybrid and national identity. Conducted in Spanish. By permission only. Ms. Acosta Cruz/Offered periodically

241 MODERN SPANISH NARRATIVE/LECTURE, DISCUSSION

A survey of the principal developments in Spanish narrative from the early rise of realism in the mid-19th century through the revival of the novel in the aftermath of the Spanish Civil War. Particular emphasis on development of innovative narrative forms and the cultural thematics of modernization. Conducted in Spanish. Prerequisite: Spanish 131 or permission. Mr. D'Lugo/Offered periodically

242 THE LATIN-AMERICAN NOVEL/ LECTURE, DISCUSSION

Readings and discussions of selected works by contemporary Latin-American novelists, emphasizing technical innovations in relation to social and political thematics. Critical, historical, and cultural material provides a context for the creative surge reflected in 20th-century narrative practice. Authors include García Márquez, Cortázar, Puig, Fuentes, Bombal, and Mastretta. Prerequisite: Spanish 131 or permission. Ms. D'Lugo/Offered periodically

243 LATIN-AMERICAN ESSAY AND THOUGHT/LECTURE, DISCUSSION

History and development of Latin-American culture through the essay genre. Looks at essays that explore issues of national identity, politics, ethnic minorities and women's status, and issues of hybridity and globalization. Conducted in Spanish. By permission only. Ms. Acosta Cruz, Mr. Ferguson/Offered periodically

245 HISPANIC-AMERICAN SHORT STORY/LECTURE, DISCUSSION

Introduces the tradition and development of short narrative in Hispanic America, from its beginnings in colonial chroniclers through the progressive refinements of theme, local color, style, and narrative technique that led to fictions of the 20th-century "boom" and beyond. Readings include works by Rubén Darío, Horacio Quiroga, José Luis Borges, Carlos Fuentes, Julio Cortázar, Juan Rulfo, Rosario Ferré, Luisa Valenzuela. Conducted in Spanish. Prerequisite: Spanish 131 or permission. Mr. Ferguson, Ms. D'Lugo/Offered periodically

246 STUDIES IN SPANISH CINEMA/ LECTURE, DISCUSSION

Surveys principal Spanish films and filmmakers of the past 50 years in the context of political and social change in Spain. Considers formulation of cultural ideology through franquista cinema in the 1940s and rise of opposition cin-

ema 1950-1975, operations of film censorship, rise of regional film cultures in post-Franco Spain, and auteurism and national/international audiences of Spanish cinema. Topics vary each time the course is offered. Conducted in Spanish. Offered in English on an occasional basis. Mr. D'Lugo/Offered periodically

248 STUDIES IN LATIN-AMERICAN CINEMA/LECTURE, DISCUSSION

Surveys film cultures, directors, and works in Latin America, emphasizing developments in Argentina, Brazil, Cuba, and Mexico. Examines politics of representation, cultural nationalism in Latin-American cinema, issues of authorship, and alternative film practices in Third World cinema. Conducted in Spanish. Offered in English on an occasional basis. Mr. D'Lugo/ Offered periodically

249 STUDIES IN HISPANIC CINEMAS/ SEMINAR

Provides students who have already completed Spanish 246 or 248 the opportunity to further explore development of film and film culture in Spain or Spanish America. Topics vary each time the course is offered. Sample topics from Spanish cinema include: Spanish and foreign constructions of national identity; narratives of female empowerment; selected film auteurs (Almodóvar, Borau, Buñuel, Saura). Sample topics from Latin-American cinemas include: race, gender and ethnicity in various Latin-American cultures; cinema as political intervention; selected film auteurs (Tomás G. Alea in Cuba, Emilio "Indio" Fernández in Mexico, Fernando Solanas in Argentina). Mr. D'Lugo/ Offered periodically

259 INTRODUCTION TO GOLDEN AGE THEATER/LECTURE, DISCUSSION

An introduction to Spain's greatest playwrights—Lope de Vega, Tirso de Molina, Ruiz de Alarcón, Calderón de la Barca and sor Juana Inés de la Cruz. Conducted in Spanish. Prerequisite: Spanish 131 or permission. Ms. Atienza, Mr. Ferguson/Offered periodically

260 THE AGE OF CERVANTES/LECTURE, DISCUSSION

Introduces Spanish literature and society in the Golden Age, from the era of Catholic monarchs to the death of Cervantes and beyond. Examines works in a variety of genres, tracing development of Spanish imagination from the flowering of Renaissance humanism through the Counter-Reformation and the birth of the baroque, a profile of brilliance and despair that characterizes Spain in these imperial centuries. Conducted in Spanish. Prerequisite: Spanish 131 or permission. Ms. Atienza, Mr. Ferguson/ Offered periodically

265 LATIN-AMERICAN POETRY/LECTURE, DISCUSSION

Beginning with colonial times and the poems of Sor Juana, students will read a generous selection of poems from all of Latin America. The course will emphasize the extraordinary flowering of poetic activity in the 20th century. Conducted in Spanish. Prerequisite: Spanish 131 or permission. Mr. Ferguson/Offered periodically.

297 SEC. 7 ADVANCED TOPICS/ SEMINAR

Close readings and discussion of representative works by major Hispanic writers. Research project required. A required capstone course for senior majors. Variable topics for 2003-2005. Conducted in Spanish. Ms. D'Lugo, Mr. D'Lugo, Ms. Acosta Cruz, Ms. Atienza, Mr. Ferguson/Offered every year

GEOGRAPHY

Graduate School of Geography Faculty

David P. Angel, Ph.D.: *urban-economic geography*

Yuko Aoyama, Ph.D.: *economic geography, global change, regional planning, technological innovation*

Martyn J. Bowden, Ph.D.: *cultural humanistic and historical/urban/social geography*

J. Ronald Eastman, Ph.D.: *geographic information systems, remote sensing, cartography*

Jacque L. Emel, Ph.D.: *resource/environmental geography, feminist theory*

Susan Hanson, Ph.D., *director: urban/social geography, transportation, research methods, feminist geography*

Stanley R. Herwitz, Ph.D.: *biogeography, forest hydrology, watershed ecology, remote sensing, UAV technology*

Douglas L. Johnson, Ph.D.: *cultural ecology, arid-lands management, land degradation, geography of the Middle East and North Africa, pastoral nomadism*

Roger E. Kasperson, Ph.D.: *hazards, global change, environment and society*

Nikolaus J. Kuhn, Ph.D.: *physical geography, soil hydrology, soil erosion, climatic change*

Laurence A. Lewis, Ph.D.: *land degradation, geomorphology, tropical agriculture*

Andy Merrifield, Ph.D.: *political theory, urban geography*

Richard Peet, Ph.D.: *political economy of development, social theory, geography of consciousness and rationality*

Colin Polsky, Ph.D.: *vulnerability analysis, human dimensions of environmental change, spatial statistics*

Robert G. Pontius, Jr., Ph.D.: *geographic information science, environmental modeling, ecological sustainability, statistics*

Samuel J. Ratick, Ph.D.: *hazards, global change, environment and public policy, modeling, quantitative methods*

Dianne E. Rocheleau, Ph.D.: *political ecology; gender; forestry/agriculture/land use; culture/power/environment/development*

John Rogan, Ph.D. (2003): *geographic information science, landscape ecology, land cover, change monitoring*

Henry J. Steward, Ph.D.: *cartography, remote sensing, history of the mapping sciences*

B. L. Turner II, Ph.D.: *human-environment relationships, global change, small holder and tropical-land use*

Affiliate Faculty

Leonard Berry, Ph.D.

Robert W. Kates, Ph.D.

Staff

Beverly Presley, A.M.L.S.: *map and geography librarian*

Emeriti

Gerald J. Karaska, Ph.D.

Duane S. Knos, Ph.D.

William A. Koelsch, Ph.D.

For the latest programmatic information, please see geography's Web site (www.clarku.edu/departments/geography).

The Graduate School of Geography, established in 1921, is the oldest doctoral-granting geography department in the United States, and is consistently ranked among the elite programs in North America. The school also offers an undergraduate major, which "Rugg's Recommendations on the Colleges" has identified as the best undergraduate geography major in America. The program emphasizes individual attention through close student-teacher relationships. All geography majors who meet the eligibility requirements may enter the accelerated master's program in geographic information science. The school also welcomes nonmajors.

Geography faculty and graduate students engage the four realms of the discipline: nature-society relationships; globalization, cities and development; earth sciences; and mapping sciences and spatial analysis. They conduct research on such issues as land use and environmental change, resource management

institutions, rain forest-canopy dynamics, gender issues across urban and rural locales, and risk-hazard studies throughout the world.

The school is closely linked to Clark's George Perkins Marsh Institute, a center of collaborative, interdisciplinary research on human-environment relationships and environment and development. Funded research in the institute supports many graduate students studying geography as well as those focusing on other disciplines. The institute specializes in research on environmental risk and hazards, the human dimensions of global environmental change, regional and participatory development, and GIS applications. The institute comprises four research centers and a research library:

- The Center for Technology, Environment and Development (CENTED), internationally recognized for its work on environmental risk and hazards, examines land-use/cover change in various cooperative ventures, such as its links to Carnegie Mellon University's Center for Integrated Assessment.
- The Greening of Industry Network is an international partnership focusing on issues of industry, environment and society; and is dedicated to building a sustainable future. The network mobilizes a community of researchers to stimulate the emergence of a new strategic research area on the greening of industry.
- The Clark Labs for Cartographic Technologies and Geographic Analysis, home of the IDRISI GIS Software, focuses on remotely sensed data and geographical information systems for analysis to solve resource and environmental problems.
- The Center for Community Based Development (CCBD) addresses participatory and gender themes in development. Institute research is carried out worldwide with major efforts ongoing in Latin America, Africa, Asia, and Europe, as well as North America.

- The Jeanne X. Kasperson Library houses a world-renowned research collection on global environmental change and on natural and technological hazards. In addition, more than 25,000 volumes and reports, 750 journals and newsletters, and various special collections cover the topics of technology, international development, water resources, and energy.

Undergraduate Program

Students majoring in geography take a minimum of 10 Geography courses in accordance with the following guidelines:

1. **Four core courses.** Core courses emphasize core geographic concepts and ways of creating knowledge; courses in the core are designed to help build frameworks for understanding the world. Students select one core course from each of the following four broad disciplinary divisions, although majors may substitute GEOG 011 The World According to Geography, for one of the required core areas.
- **Nature-Society.** How have societies used, shaped, and constructed nature? What are the impacts of various societies, economies, and cultures on ecological systems?

Core courses in nature-society:

- 017 Culture, Place, and the Environment
- 105 Keeping of Animals: Patterns of Use and Abuse
- 126 Living in the Material World: The Political Geography of Resource Development
- 132 Before and After Columbus: Ancient Middle America and the Impact of the Conquest
- 136 Gender and Environment
- 179 International Political Ecology
- 180 The Earth Transformed by Human Action
- 184 Landscapes of the Middle East

- **Globalization, Cities and Development.**

How have space and location shaped economic, social, political, and cultural life? How do economy, society, politics, and culture shape space and location? How is globalization changing these processes? How do these processes relate to the dynamics of urban life?

Core courses in globalization, cities and development:

- 107 Miracles of Asia: Economic Growth in Global Contexts
- 016 Introduction to Economic Geography
- 020 Introduction to Urban Geography
- 120 New York: History, Culture and Politics
- 127 Political Economy of Development
- 142 Cities and Culture: The American City
- 152 Geography and Globalization
- 196 Culture and Sport

- **Earth Sciences.** How does the geosphere interact with the hydrosphere, atmosphere, and biosphere?

Core courses in earth sciences:

- 014 Weather, Climate, and Landscapes
- 025 First-Year Seminar in Land Degradation
- 101 Environmental Geology
- 114 Intermediate Geomorphology
- 118 Environment and Disasters

- **Geographic Information Science.**

Geographic Information Science is concerned with the acquisition, storage, analysis and communication of geographic information. This includes applied skills in cartography, remote sensing, geographic information systems and spatial analysis.

Core courses in geographic information science:

- 085 Introduction to the Mapping Sciences
- 187 The Image of the World: The History of Maps and Map Making
- 190 Introduction to GIS

Each year, several 000- and 100-level courses are designated as core courses in each of these areas. In special cases, a 200-level course may be used to fulfill a core course requirement, subject to the approval of the student's adviser and either the undergraduate adviser or the director of the school.

2. Two skills courses. All geography majors take GEOG 141 Research Methods (offered each year) and one additional course in a skill area appropriate to the student's area of specialization, as detailed in their learning plan (discussed below). The adviser's signature on the learning plan signifies formal approval of this elective skills course.

With the approval of the student's adviser, a comparable skills course in another department can be substituted. Students substituting a skills course from another department will need to take an additional geography course to ensure that a total of 10 geography courses are taken.

Geography skills courses include:

- 110 Introduction to Quantitative Methods in Geography
- 181 Introduction to Cartographic Design
- 189 Introduction to Remote Sensing and Geographic Imagery
- 190 Introduction to GIS
- 206 GIS and Local Planning
- 247 Intermediate Quantitative Methods in Geography
- 255 Qualitative Research Methods, Skills, and Applications
- 260 Quantitative Modeling
- 285 Spatial Database Development
- 292 Digital Cartographic Design and Production
- 293 Digital Image Processing

3. Three specialization courses. Each geography major takes three specialization courses, two of which must be at the 200 level and one of which may be either at the 100 or 200 level. Specialization courses are subject

to approval by the student's adviser and must reflect a logical combination of courses as specified in the formal learning plan (see below). Formal approval of the elective specialization course is implied by the adviser's signature on the learning plan.

Specialization courses in geography:

- 200 Land Degradation
- 206 GIS and Local Planning
- 205 Environmental Research
- 207 Soil Erosion: From Measurement to Assessment
- 211 African Environments and Geographical Implications
- 217 History of Cartography
- 218 Seminar in Physical Environment and Development
- 222 Why Global Warming Matters
- 224 Economy and Environment
- 226 Seminar: Environmental Hazards Theory, Models, and Applications
- 228 Management of Arid Lands
- 232 Landscape Ecology
- 234 The Geography of Fire
- 237 Feminism, Nature, and Culture
- 239 Country and Culture
- 240 End of America: Los Angeles
- 242 Cities and Culture: The European City
- 244 Gender, Work, and Space
- 250 Technology and Environmental Assessment
- 254 Urban Transportation: Problems and Prospects
- 255 Qualitative Research Method, Skills, and Applications
- 256 Global Economic Geographies
- 257 Internet Geography: Socioeconomic Impacts of Information Technologies
- 258 Utopian Visions, Urban Realities: Planning Cities for the 21st Century
- 260 Quantitative Modeling
- 261 Decision Methods for Environmental Management and Policy
- 262 Urban Economic Geography
- 263 Atmosphere and Climate Change

- 271 Groundwater Hydrology and Management
- 277 Gender, Environment and Development
- 280 Urban Ecology: Cities as Ecosystems
- 281 Tropical Ecology
- 282 Advanced Remote Sensing
- 284 Environment and Development in the Middle East and North Africa
- 285 Spatial Database Development
- 289 Development Policy
- 290 Directed Research: NASA UAV Project
- 294 Seminar in Cartography

4. **A formal learning plan.** Each student is required to prepare a formal learning plan that establishes the logical connections among the specialization courses and the elective skills course. The learning plan is typically a single page in length, and requires signatures by the student, faculty adviser, and director or undergraduate adviser. This approval process should normally be obtained before the end of the spring semester of the junior year and must be completed before senior clearance will be granted.
5. **A Capstone course.** Capstone courses provide an integrative perspective within an area of specialization. Each year a series of capstone courses is offered. The chosen capstone should have a close logical connection with the student's specialization courses and is subject to the approval of the student's faculty adviser. In special circumstances, a nondesignated course may be substituted as a capstone with approval by the undergraduate adviser or the director of the school.
6. **A research applications course.** Each geography major is required to take at least one 200-level geography course within which he or she carries out an independent research project involving research design, data collection, analysis and a reporting of results. Taken after GEOG 141 Research Methods,

this course can also satisfy other requirements for the major (normally the specialization requirement) and thus does not necessarily add to the total number of courses taken. The research applications course may be Directed Research (299) or a research-oriented capstone course.

To fulfill the research applications requirement the student must present his or her research project at a poster session. Typically departmental poster sessions are organized by the School of Geography at the end of each semester, although poster presentations at other appropriate venues (Fall Fest; Academic Spree Day; professional meetings) also are encouraged.

Requirements for the Dual Major in Geography

In accordance with University guidelines, the requirements for a dual major are identical to those of the individual major.

Requirements for the Minor in Geography

Students wishing to take a minor in Geography must complete the following components of the regular program of the major (for a total of seven courses):

1. **Two core courses.** Core courses emphasize core geographic concepts and ways of creating knowledge; courses in the core are designed to help build frameworks for understanding the world. Each of the core courses must be selected from one of the following broad disciplinary divisions:
 - **Nature-Society.** How have societies used, shaped, and constructed nature? What are the impacts of various societies, economies, and cultures on ecological systems?
 - **Globalization, Cities and Development.** How do space and location shape economic, social, political, and cultural life? How do economy, society, politics and culture shape

space and location? How is globalization changing these processes? How do these processes relate to the dynamics of urban life?

- **Earth Sciences.** How does the hydrosphere, atmosphere, and biosphere interact with the geosphere?
- **Geographic Information Science.** Geographic Information Science is concerned with the acquisition, storage, analysis and communication of geographic information. This includes applied skills in cartography, remote sensing, geographic information systems, and spatial analysis.

Each year, several 000- and 100-level courses are designated as core courses in each of these areas. In special cases, a 200-level course may be used to fulfill a core course requirement, subject to the approval of the student's adviser and either the undergraduate adviser or the director of the school.

2. **One skills courses.** Each student undertaking the geography major is required to take at least one geography skills course appropriate to the student's area of specialization. This course must be approved by the student's adviser.
3. **Three specialization courses.** Two specialization courses must be at the 200 level and one may be at the 100 or 200 level. The faculty adviser must approve the specialization courses selected.
4. **One elective geography course.** The seventh course in the geography minor is an elective that can be taken at any level.

Honors Program

The honors program in geography gives the advanced student the opportunity to conduct a major independent research project on a topic of interest to him or her. To graduate with honors a student must successfully complete a two-semester independent honors project con-

ducted under the supervision of a faculty adviser and one additional faculty member.

Successful completion of the honors project will be recognized at commencement. Most students will produce the honors thesis during the senior year although in some circumstances students may opt to enroll in the honors program for the spring semester of the junior year and fall semester of the senior year. Geography honors is open to juniors who, by the end of the first semester of the junior year, have a minimum grade-point average of 3.25 overall and 3.5 in the geography major and who can demonstrate the appropriate research background to undertake independent geographic research.

For further information about the geography honors program and the geography undergraduate major, please contact Professor Douglas Johnson at 508-793-7370 or email: dljohnson@clarku.edu and view our Web site (www.clarku.edu/departments/geography). Undergraduate brochures are available in the main office of geography and also may be mailed to prospective majors.

Graduate Program

The Graduate School of Geography has awarded more doctorate degrees than any other geography program in the United States. Students are not accepted for master's studies only, although many choose to earn that degree en route to the doctorate. The M.A. is also available to those who leave the program early. For information on the M.A. in Geographic Information Systems and International Development, see below.

Applicants with or without prior training in geography are welcome. Depending on their concentrations, students may be required to improve their knowledge of geography, cartography, quantitative methods, or research methods. Graduate Record Examination scores (verbal, quantitative, and analytical) are required of all American and Canadian students.

TOEFL scores or results of another English proficiency test are required for students from countries in which English is not the first language. The deadline for graduate applications is January 15. All applicants receive careful consideration from a faculty-student admissions committee, which meets early in the spring semester to evaluate candidates. For further information and application materials, please view our Web site (www.clarku.edu/departments/geography) for application materials, which may be downloaded; or contact the graduate admissions coordinator, Madeleine Crinkis, in writing, or by telephone: (508) 793-7337/7336; fax: (508) 793-8881; or email: geography@clarku.edu.

Doctoral Program Requirements

Applicants should request a copy of current guidelines and degree requirements from the graduate admissions coordinator (see above).

The graduate curriculum provides an opportunity for students to pursue studies across the full array of geography: human geography (space-society), human-environment geography (nature-society), biophysical geography, and the mapping sciences. Students are encouraged to explore faculty and research interests across these geographies in combination with work in complementary fields and disciplines within and outside of Clark.

Requirements include 16 course credits (eight for those entering with an M.A.); satisfactory completion of doctoral examinations; fulfillment of a skills requirement; and completion, acceptance, and successful defense of a dissertation. Also required are three years of residence (or two and one-half for those entering with an M.A. in geography). The normal course load is three courses per semester. The usual sequence students follow is: course work, doctoral exam, research proposal, and dissertation research, write up, and defense.

In the first year, students normally complete the two required courses, GEOG 318 Explanation in Geography, and GEOG 368

The Development of Western Geographic Thought, and take additional courses to help refine their interests. Students then meet with advisers for evaluation and planning.

In the second year, students are encouraged to fulfill the skills requirement, to prepare for doctoral exams, and to begin dissertation proposal formulation. Course work normally includes seminars, directed readings, and directed research. A review of the student's progress is held at the end of the year.

Students who have not already completed their doctoral exams and dissertation proposal are expected to do so in the third year of study.

Students must demonstrate, through course work or examination, proficiency in two of the following areas: multivariate statistics, research design/research methods, geographic information systems, foreign language, or other courses approved by the student's faculty adviser and the director of the Graduate School of Geography.

The doctoral exam assesses the competency of a graduate student in one major and two minor fields. Competency is defined as an understanding of the substantive content and range of theoretical approaches within each subfield. Students must be able to critique the alternative research traditions and defend the theoretical frameworks they adopt. They are expected to have in-depth knowledge of the major field, to master a survey of the first minor field, and to demonstrate detailed knowledge of a single subfield in the second minor.

The doctoral examination is conducted orally. The examination in the major field lasts approximately one-and-a-half hours, and each minor takes about 45 minutes. At the student's discretion, the major and/or first minor may have a written component, which is in addition to the oral examination.

A formal proposal for dissertation work must be completed and approved by a committee of at least four faculty, one of whom is from outside the school. The proposal is approved after a formal defense before the committee.

The process of conducting and writing up the dissertation research involves close interaction between student and committee members. After extensive criticism and rewriting, a draft thesis is defended at a working session of the committee. A final version incorporating changes suggested at the draft stage is submitted for approval by the dissertation committee. At the discretion of the committee, the director and the student, a public presentation and dissertation signing ceremony may be scheduled.

M.A. Programs

The Graduate School of Geography offers two formal programs leading to a Master of Arts degree: an Accelerated M.A. in Geographic Information Science (to begin Fall 2004) and an M.A. in Geographic Information Science for Development and Environment (offered jointly with the International Development, Community and Environment Department).

Accelerated M.A. in Geographic Information Science Overview

Geographic Information Science is a subfield of geography concerned with the acquisition, storage, analysis and communication of geographic information. In addition it conducts primary research on the manner in which we acquire knowledge from spatially referenced data. Geographic information analysts have applied skills in the concepts of geodesy, cartography, remote sensing, spatial analysis and decision science, and strong working knowledge of the Global Positioning System, Geographic Information Systems and Digital Image Processing software, Dynamic Modeling and Geostatistics. They are skilled in the problems of spatial georeferencing, error modeling and the propagation of uncertainty, the modeling of spatial processes, and procedures for multicriteria and multiobjective decision making. In addition, they have the graphic communication and cartographic skills required for the production of effective map displays and geographic information presentations.

Program of Study

The master's degree in geography specializing in Geographic Information Science requires the completion of 10 graduate course credits, two of which are taken during the senior year and two of which are completed during the summer between the senior year and the fifth year. Three of the 10 credits are devoted to the completion of a master's research project. The breakdown is as follows:

Senior year: GEOG 397: Advanced Topics in GIS plus one additional 200- or 300- level course approved by the B.A./M.A. adviser. Candidates for the fifth-year program are also required to develop a master's research proposal, with a signed statement of support from two faculty sponsors who will act as the adviser and the reader. The proposal must include a three-semester work plan. See the Departmental Requirements section for details on timing.

Summer following senior year: a one-credit internship in Geographic Information Science and a one-credit directed research project associated with the master's research project. This project is focused on database development for the master's project, and may be linked to the internship project. Typically, this course is completed off campus. However, it requires frequent communication with the student's adviser. Details of the mechanism for this communication must be included in the project proposal.

Fifth year: six graduate course credits (three per semester), of which one credit each semester will be devoted to the completion of the master's research project. In April, the student will be required to give an oral presentation of the findings of the master's research project, along with other students in the GIS and GISDE masters programs. In addition, the student must submit to the B.A./M.A. adviser, by the end of the spring semester, a publication quality paper, associated with the project, certified by the student's adviser and reader.

Of the six courses not associated with the master's project and internship (taken during

the senior and fifth years), a minimum of four must be directly associated with Geographic Information Science and two may be electives associated with the application area of specific interest to the student.

Departmental Eligibility Requirements

To be eligible for the fifth-year M.A. program in Geographic Information Science, the student must complete a B.A. with a major (or second major) in geography at Clark and meet all University requirements for entry into the fifth-year program. In addition, the student will have needed to have completed GEOG 190 Introduction to GIS, GEOG 206 GIS and Local Planning, and GEOG 397 Advanced Topics in GIS by the end of their senior year.

In accordance with these requirements, students who have declared their intention to apply for the fifth-year program must submit a formal application to the Graduate School of Geography by October 15 of their senior year. Then by April 1 of the senior year, it is necessary to submit to the geography B.A./M.A. program adviser, evidence (such as a current transcript) that all course requirements will be met, and an approved master's project proposal, signed by a geography faculty adviser and a reader. The reader can, with the approval of the geography B.A./M.A. program adviser, be a faculty member from outside geography. Final offers of admission will be made by the graduate dean.

Lab Fee

Because of the very heavy costs associated with hardware and software licensing in the GIS and Image Processing area, students will be required to pay a lab fee of \$1000 per semester (fall and spring) during the completion of their fifth-year program.

Contact Person

The geography B.A./M.A. program adviser is Professor Ron Eastman; 508-793-7336; reastman@clarku.edu.

Advice for Students

Geographic information science (GISci) has grown out of the development of Geographic Information Systems (GIS) as a technology.

A Geographic Information System consists of a database of spatial information (such as digital map data and satellite imagery) along with specialized software for the acquisition, management, display and analysis of those data. GIS technology has grown enormously over the past 30 years, to the point where it is ubiquitous in the mapping, analysis and management of spatially distributed resources. GIS software, including specialized image-processing software for the extraction of data from remotely sensed imagery, is in daily use in areas as diverse as urban systems management, regional planning, emergency response, epidemiology, landscape architecture, environmental planning, forestry, geology, ecology, park management, power utilities, and the like.

As GIS has developed, so too has the scientific expertise to support its development and continued activity. Geographic information science has both an applied and a theoretical side. Organizations such as the University Consortium for Geographic Information Science (UCGIS), of which Clark is a founding member, focus on the theoretical development of the discipline. However, the term is also used to describe the program of studies required to become a GIS analyst (as it is here). Note that in some countries, the term *Geomatics* is virtually synonymous with Geographic Information Science.

Clark offers a broad program of studies in geographic information science. However, it has special strengths in the analytical development of GIS and image-processing technology and the application areas of global environmental change, land-use change modeling, environmental modeling, risk analysis and vulnerability mapping. Clark continues to be a world leader in the development of GIS and image-processing technology through its development of the IDRISI and CartaLinx software systems. Opportunities exist for students to

become directly involved with the development and support of these systems.

Clark is a research university that has been on the defining edge of geographic information science since its inception. However, its breadth of expertise in the sphere of environmental studies offers special opportunities for students who pursue a dual major in their undergraduate program. In particular, special opportunities exist for students interested in the combination of geographic information science and disciplinary foci in computer science, biology/ecology, economics (spatial econometrics), business administration, environmental science and policy, and international development and social change.

M.A. in Geographic Information Sciences for Development and Environment

The International Development, Community and Environment (IDCE) Department and the Graduate School of Geography offer this specialized degree for early and midcareer professionals with responsibilities in mapping, environmental database development, resource management, planning, policy implementation and monitoring. The 12-month time frame enables professionals to take a one-year leave of absence to complete the degree. The program is technically oriented with an emphasis on integration with social aspects of international development required of the practicing GIS analyst. For further information, please contact the IDCE department: telephone: (508) 793-7201; fax: (508) 793-8820; e-mail: idge@clarku.edu.

Distinctive Features

Office, study, and research facilities include three earth science and geographic information systems (GIS) laboratories, a soils lab and the Hadwen Herbarium, a map library, a reserve library, a cartographic productions lab, and work, lounge, and personal-computing rooms for graduate students.

Founded in 1921, the Guy H. Burnham Map and Aerial Photograph Library is an active cartographic information center. The collection contains 230,000 maps, images, digital data, GIS and mapping software, atlases, journals, globes, reference materials, and tourist information. As a depository for the U.S. Government Printing Office, the map library houses a full array of maps and electronic products published by the federal government. For the latest map library information, visit our Web site (maplib.clarku.edu).

The J.K. Wright Reading Room and the Libbey Seminar Room contain regularly updated publications in the field of geography and subscriptions to geography journals. These facilities serve as a reserve library/reading room for many geography courses. Also see Jeanne X. Kaspersen Research Library.

CoFERT (Computer Facility for Environmental Research and Teaching) supports research in geography and the Marsh Institute requiring large data sets and advanced computer-based analyses.

The Geography Computer Lab is a teaching lab for such courses as GIS, automated cartography, statistics, and physical geography.

The school also affords students access to Clark Labs and the IDRISI (GIS) Project, complete with a suite of hardware and data connections directed to the use of GIS and remote sensing (See Marsh Institute). The IDRISI GIS software, developed by Clark geography professor Ronald Eastman, is produced here and is used by the United Nations and more than 35,000 users worldwide.

The school houses a geological collection and the Hadwen herbarium. It also supports the Tower Hill Research Station based at the Tower Hill Botanic Garden in the Wachusett Reservoir watershed. The station is equipped with continuously recording meteorological instrumentation. Research at this site is complemented by the school's soil lab. Students have used these facilities to quantify evaporation losses from forested ecosystems and hydrochemistry of snowmelt dynamics.

Publications/Reports

The internationally peer-reviewed journal, *Economic Geography* is published by Clark University. Founded in 1925, *Economic Geography* is committed to publishing the best theoretically based empirical articles that deepen the understanding of significant economic geography issues around the world.

The Geography Newsletter is published regularly for undergraduates and the Monadnock Newsletter is the school's alumni publication. The CENED and Marsh Institute publication series includes work by numerous members of geography. An Environmental Research Station reports forest and soil hydraulic inventories to the MDC (Massachusetts Metropolitan District Commission) Division of Watershed Management. The data assists with forest management decisions in the Wachusett watershed.

Student Organizations

Undergraduates are served by the Clark Undergraduate Geography Association (CUGA) and Gamma Theta Upsilon (GTU), a geographic honors organization. Clark University Geographical Society (CUGS) serves the graduate students.

Courses

011 THE WORLD ACCORDING TO GEOGRAPHY

Introduces students to the breadth of the discipline of geography. The course explores the four themes of geography in theoretical terms: nature-society interactions; globalization, cities, and development; earth sciences; and geographic information sciences. The course explores several critical applied geographical research themes, including global warming, economic globalization, sustainable development, and regional studies. A comparative-perspective course. Mr. Polsky/Offered every year

014 WEATHER, CLIMATE AND LANDSCAPES/ LECTURE, LABORATORY

A basic inquiry into principles and components of landforms and climates. Provides background for evaluating environmental prob-

lems, including the role of human activities on physical processes. A science perspective course. Mr. Kuhn/Offered every year

016 INTRODUCTION TO ECONOMIC GEOGRAPHY/ LECTURE, DISCUSSION

An introduction to the study of industrial geography and regional development. Uncovers the hidden spatial logic behind the emergence of manufacturing zones, shopping malls, financial center, and suburban residential zones. Explores how these locational patterns are being affected by globalization. Discussions will focus on the role of technological progress, industrial organization, and government policy in shaping the locations of production and services, and how they affect regional growth and decline. A comparative perspective with international orientation course. Ms. Aoyama/Offered every year

017 CULTURE, PLACE, AND THE ENVIRONMENT/ LECTURE

Ecological and historical approach to cultures and cultural change in a global and spatial context. Broad themes and problems of North America are emphasized: adaptation to "natural" environment; culture in prehistory; migration; creation of cultural areas; fire as a cultural artifact; world views of primitive, traditional, and industrial culture; cultural landscape; cultural geography of the United States. One weekly discussion section. A comparative perspective course. Mr. Johnson/Offered every year

020 INTRODUCTION TO URBAN GEOGRAPHY/ LECTURE, DISCUSSION

Cities are massive and problematic human creations, and they draw their character and problems from the diverse people who inhabit them. At the same time as people shape their physical and social surroundings, the physical and social surroundings also shape people. Thus, a complex two-way process unfolds, which this course will explore using examples from North America. American cities have changed dramatically during the last hundred years. Often urban change reflects demographic, economic,

political and cultural changes. In response, different theoretical approaches have arisen to explain changing socio-spatial trends. Four identifiable approaches will frame these twice-weekly classes: quantitative and descriptive approaches, derived partly from neoclassical economics and functionalist sociology; behavioral approaches that react against economic determinism and look at actual human experience and decision making; structuralist approaches, emphasizing the constraints on human behavior imposed by social structures and powerful interests and institutions; and poststructuralist approaches that try to accommodate difference and ambiguity, multiculturalism and gender, in explanations about contemporary city dynamics, and look at how new diasporas of peoples have fractured solid identities, as well as catalyzed new urban forms. Mr. Merrifield/Offered every year

025 FIRST-YEAR SEMINAR IN LAND DEGRADATION

Land degradation is defined as the decrease in an area's potential biomass productivity or utility to humans. Since the invention of fire, humans have modified the environment sometimes accidentally and sometimes on purpose. Sometimes environmental modification is beneficial, but all too often it isn't. Given that technologies exist to prevent land degradation, why does it still continue? This seminar examines both from the theoretical and applied perspectives land degradation. Students will be expected to develop a case study of land degradation and critically analyze it. Mr. Lewis/Offered every year

085 INTRODUCTION TO THE MAPPING SCIENCES/ LECTURE, LABORATORY

Introduces mapping sciences in relation to geography. Covers geodesy, surveying, cartography, airphoto interpretation, photogrammetry, remote sensing, and geographical information systems. The topics are studied separately and as integral elements in the emerging field of spatial information systems. For first-year students, majors and nonmajors. A science perspective course. Mr. Steward/Offered every year

101 ENVIRONMENTAL GEOLOGY/LECTURE

An introduction to the basic principles of physical and historical geology, with a special focus on environmental geology. Topics covered include the formation of earth and earth materials, plate tectonics, landform evolution, glaciology and the history of life. The relevance of geology for current issues, such as geo-logic resources, water quality, and climate is emphasized. Mr. Kuhn/Offered every year

105 KEEPING OF ANIMALS: PATTERNS OF USE AND ABUSE/LECTURE, DISCUSSION

Animals play a prominent role in human life. They sustain us, entertain us, and provide companionship and solace. Pests and predators compete with humans for food, while harmful diseases lurk unseen in animal reservoirs. Images of goodness and evil reflect the ambivalent attitudes and cultural prejudices that govern human responses to animals. This course explores the cultural, historical, and ecological interactions between people and animals, and balances utilitarian and ethical perspectives on current patterns of animal use and abuse. A comparative perspective course. One weekly discussion section. Mr. Johnson/Offered every other year

107 MIRACLES OF ASIA: ECONOMIC GROWTH IN GLOBAL CONTEXTS/LECTURE, DISCUSSION

Explores the reasons behind the rapid rise of Asian economies and their sudden crises. Discussions include the impacts of rapid industrialization on the standard of living, housing, the role of the state, multinational corporations, urban problems, and ethnic relations in East, Southeast, and South Asian countries. A comparative perspective with international orientation course. Ms. Aoyama/Offered every year

110/311 QUANTITATIVE METHODS IN GEOGRAPHY: INTRODUCTION/LECTURE, LABORATORY

Introduces the role of the computer in geographic and statistical analysis. Considers data sampling and descriptive and inferential statistical techniques for analyzing geographic data.

Includes graphic techniques, tests of hypotheses, and regression. Students use computer programs for statistical analysis. No prior exposure to computers or statistics is assumed. The course is suitable for students of all levels and is one for which graduate students may receive credit. A skills course for geography majors. A formal analysis course. Mr. Pontius, Staff/Offered every year

114 INTERMEDIATE GEOMORPHOLOGY/LECTURE

Examines the processes resulting in landform diversity. Emphasizes fluvial processes and climate/landform relations. Prerequisite: Geography 014 or permission of instructor. Mr. Lewis/Offered every other year

118 ENVIRONMENT AND DISASTERS/LECTURE

Examines basic concepts and processes within the earth sciences, relative to the evaluation of risks and decisions on future policies of land use and resource utilization. Emphasizes aspects of the environment of particular interest to geographers, geologists, and planners. Prerequisite: Geography 014 or permission of instructor. Staff/Offered every other year

120 NEW YORK: HISTORY, CULTURE, AND POLITICS

The course aims to capture the beauty and complexity, together with the power and the problems of one of the world's most fascinating cities, New York. It offers a sweeping historical-geographical overview that begins in the mid-19th century with Walt Whitman and chronicles New York's fate up to and beyond September 11. En route, it discusses the Gilded Age, Olmsted's Central Park, the building of the Brooklyn Bridge and the skyscrapers, the Depression, the New Deal and Robert Moses, the Fiscal Crisis of the 1970s. It will also try to grapple with New York's everyday street life, its race relations, its city politics, its borough and neighborhood dynamics, as well as the Mayoral reigns of John Lindsay, Abe Beame, Ed Koch, David Dinkins, and Rudy Giuliani. Classes will also explore the construction of World Trade Center and conclude with New York's post-9/11 future. Mr. Merrifield/Offered every year

126 LIVING IN THE MATERIAL WORLD: THE POLITICAL GEOGRAPHY OF RESOURCE DEVELOPMENT/LECTURE, DISCUSSION

Focuses on institutions that govern the development, allocation, and use of natural resources like water, minerals, trees, and animals. Emphasizes approaches used by geographers to study natural resources. Case studies provide an opportunity to examine differences between societies (or economies) and between specific resource issues. Water in the western United States, Israel, or India; gold in Ghana, the United States, and South Africa; and animal use in India, Great Britain, and China are some examples of typical cases. A comparative perspective course. Ms. Emel/Offered every other year

127 POLITICAL ECONOMY OF DEVELOPMENT/LECTURE

Surveys the leading theories of development: classical, neoclassical, and Keynesian economies, social modernization theory, Marxist and neo-Marxist theories, poststructural critiques, postdevelopmentalism, feminism, and feminist critiques of development. A comparative perspective course. Mr. Peet/Offered every year

132 BEFORE AND AFTER COLUMBUS: ANCIENT MIDDLE AMERICA AND THE IMPACT OF THE CONQUEST/LECTURE

What were the human-environment conditions and dynamics in Middle America (Caribbean, Central America, Mexico) previous to, and since, 1492? Approaches these questions from archaeology, history, and environmental studies, placing them within cultural ecology perspectives. Mr. Turner/Offered periodically

136 GENDER AND ENVIRONMENT/LECTURE, DISCUSSION

Explores how gender is reflected in the landscape, in our settlement and land-use patterns, in environmental history, and in our present ecological science and practice from the global to the local level. Combines lectures, readings, discussions, films, and local field trips. Reviews feminist and other alternative explanations of the gendered nature of knowledge, access, use,

and control of space and resources in environments —past, present, and possible. Regional focus on New England. A values perspective course. Ms. Rocheleau/Offered every year

141 RESEARCH METHODS IN GEOGRAPHY/LECTURE, DISCUSSION

Focuses on ways empirical social-science research is conducted. Students study problems, methodological strategies, and analytical techniques characteristic of current social geographical research. Includes defining a research problem, measurement, sampling, research design, analysis, and writing the report. A formal analysis class, and a required skills course in the geography major. Ms. Hanson, Staff/Offered every year

142 CITIES AND CULTURE: THE AMERICAN CITY/LECTURE AND FIELD TRIP

Studies development of distinct subcultures in America and in cultural capitals. Emphasizes expression of culture in Boston, Philadelphia, New York, Chicago, San Francisco, and Los Angeles, and in distinctive regional cultural capitals of Charleston, Salt Lake City, Santa Fe, and New Orleans. Mr. Bowden/Offered every year

152 GEOGRAPHY OF GLOBALIZATION/LECTURE, DISCUSSION (FIRST YEAR SEMINAR)

An introduction to the study of globalization and geographical variations in its impacts. Examines the issues of development, income disparity across regions and nations, the emergence of multinational corporations, the impacts of government policy, and the role of information technologies in globalization. A comparative course with international orientation course. Ms. Aoyama/Offered every other year

179 INTERNATIONAL POLITICAL ECOLOGY/LECTURE, DISCUSSION, FIRST-YEAR SEMINAR (IN ALTERNATE YEARS)

Integrates ecology and political economy from local to global scale through case studies. Starts from a view of people in environmental “hot spots,” following links to world economy and planetary ecosystems. Explores connections of international environmental and economic

policy with everyday realities and possible ecological futures of people from the Amazon rain forest to the streets of Worcester. Offered as a first-year seminar (fulfills the comparative perspective and verbal expression requirements), and as a lecture course (fulfills the comparative perspective course requirement) alternate years. Ms. Rocheleau/Offered every year

180 THE EARTH TRANSFORMED BY HUMAN ACTION/LECTURE, DISCUSSION

Traces the course of human modification and transformation of the earth since antiquity, but with particular emphasis on the last 300 years. The major causes and consequences of these changes are explored from global climate change to the sustainability of life. Verbal expression and nonverbal expression sections. Mr. Turner/Offered every year.

181 INTRODUCTION TO CARTOGRAPHIC DESIGN/LECTURE, LABORATORY

Introduces fundamental principles of cartographic design. Emphasizes the need to reconcile graphic representation with geographic description, on both intellectual and practical levels, for the map user. Ranges from concepts of space and spatial representation to information handling techniques and the perceptual basis of graphic communication. A skills course in the geography major. Mr. Steward/Offered every year

184 LANDSCAPES OF THE MIDDLE EAST/LECTURE, SEMINAR

An array of landscapes, economies, and cultures comprise the Middle Eastern culture realm. Studies modernization and transformation of traditional Islamic and non-Islamic life and livelihood in the Middle Eastern cultural mosaic. Literature and ethnographic description supplement geographic analysis. Mr. Johnson/Offered every other year

187 THE IMAGE OF THE WORLD: THE HISTORY OF MAPS AND MAP MAKING/FIRST-YEAR SEMINAR

An introduction to the history of cartography centered around the idea of the map as the "mirror of culture." That is, how cartography, while being set against a geographical back-

ground, has always been deeply connected to historical events, trends in intellectual thought, changes in society, and advances in technology. The course will range worldwide, cover a time period from earliest times to the present, deal with the products of explorers, surveyors, mariners, philosophers, scientists, writers, politicians, and others. Use will be made of the holdings in the University Map Library and the Rare Book Room, and may also involve outside field trips. Offered in the spring 2003 semester. Fulfills the historical perspective. First preference will be given to students in the International Studies Stream. Others will be admitted on a space available basis. Mr. Steward/Offered every year

189 INTRODUCTION TO REMOTE SENSING AND GEOGRAPHIC IMAGERY/LECTURE, LABORATORY

Introduces a powerful methodology for surveying and analyzing geographical phenomena. Examines aerial photography and satellite imagery and their analysis for interpreting, understanding, and representing the environment. Includes image mapping, photogrammetry, and field surveying. A skills course in the geography major. Mr. Steward/Offered every year

190/390 INTRODUCTION TO GIS/LECTURE, LABORATORY

Introduces GIS as a data management, analysis, and mapping tool. Stresses fundamental logic and scope of problem solving using raster and vector systems. Although the course is computer oriented, no programming is involved. Graduate students may receive credit for this course. A formal analysis course. Counts as skills course or core course in mapping sciences/spatial analysis in geography major. Mr. Eastman, Mr. Marciano/Offered every semester

196 CULTURE AND SPORT/LECTURE, DISCUSSION

Readings in humanities texts, film, and social-sciences frameworks explore track and field, boxing, cricket, baseball, soccer, rugby, football, basketball, hockey, and tennis. Includes the relation between game character and structure and their success among different groups of

Americans; the timing of game adoption; explanations for the transformation of the games from British and early forms; and deviation of professional and amateur variants. The class period is extended occasionally for special events (e.g., films). Mr. Bowden/Offered every other year

200/301 LAND DEGRADATION/SEMINAR

Resource use often results in degradation of aquatic and terrestrial productivity. Roles of agriculture, deforestation, urbanization, and industrialization on land degradation problems are examined in a contemporary and a historical framework. Mr. Lewis, Mr. Johnson/Offered every other year

205/305 ENVIRONMENTAL RESEARCH/SEMINAR

Directed research or directed studies in physical geography for advanced undergraduate and graduate students with an interest in a topic related to climate, soils and water. Students are encouraged to select a topic of their own interest or related to their graduate research. During group meetings the research/study projects are developed and discussed from the initial ideas to final reports and oral presentations. Facilities for potential field and laboratory work are the Tower Hill Research Station and the Physical Geography Laboratory at Clark University. Topics in the 2002 fall term included: land-use change and groundwater recharge in the Tatnuck Brook watershed, Worcester, Mass.; soil-water balance at Tower Hill Botanical Garden during an El Nino/La Nina cycle; comparing aggregate stability and USLE k-factor as indices of soil erodibility in central Massachusetts; measurement strategies to identify pollutant pathways in Tatnuck Brook, Worcester, Mass. Mr. Kuhn/Offered every year

206/306 GIS AND LOCAL PLANNING/SEMINAR, PROJECT

Explores issues and procedures involved in the application of GIS to local government planning. Develops hands-on familiarity with the Arc/Info vector-based system, and its application in database development (data conver-

sion), routine data management, and planning activities. Prerequisite: Geography 190 and permission. Mr. Marciano/Offered every year

207/307: SOIL EROSION: FROM MEASUREMENT TO ASSESSMENT/FIELD SEMINAR

Specialization/capstone course. The course work consists of an erosion research project, conducted at the Tower Hill Botanical Garden Research Station, and erosion risk in central Massachusetts by using the Revised Universal Soil Loss Equation. The experimental work focuses on a current research theme (fall 2002: assessing the sensitivity of soil erodibility at Tower Hill to changing weather pattern) in soil erosion and includes data collection during simulated rainfall erosion experiments at Tower Hill and soil analysis in the Physical Geography Laboratory at Clark University. Assessment of on-site soil loss, off-site soil deposition, in particular the risks of nonpoint source pollution, are discussed, focusing on the use and limitations of common planning tools such as the RUSLE and WEPP. The course work is complemented by selected background readings and preparation of essays on relevant issues in soil erosion and conservation. At the end of the term, students have to present two posters, contrasting the erosion research with common techniques of erosion-risk assessment. Mr. Kuhn/Offered every year

211/311 AFRICAN ENVIRONMENTS AND GEOGRAPHICAL IMPLICATIONS/LECTURE, DISCUSSION

Through an examination of the five major environmental conditions found on the continent, a series of topics will be examined. In particular, relationships of the environment to the patterns of political change from precolonial to the present, land degradation and urbanization will be explored. Mr. Lewis/Offered periodically

217/317 HISTORY OF CARTOGRAPHY/SEMINAR

An introductory survey based on the idea of the map as a mirror of culture. Material ranges in place, time, and context, from the fragmentary records of ancient map making and the

impulses behind empires and exploration to the statecraft and complexities of the 20th century. Individuals, technologies, motivations, and historical settings are all examined. A historical perspectives course. Permission of instructor required. Mr. Steward/Offered every year

218/319 SEMINAR IN PHYSICAL ENVIRONMENT AND DEVELOPMENT/SEMINAR

The world today is changing more rapidly than at any time in history. This course reviews the patterns of change in the Third World, examines the role of environment and resource management in development, and allows students to develop their own in-depth case studies. Permission of instructor required. Mr. Lewis/Offered every other year

222/322 WHY GLOBAL WARMING MATTERS/SEMINAR

Offers students the chance to examine the causes, consequences, responses, and political debates associated with anthropogenic climate change (global warming). Mr. Polsky/Offered every year

224/324 ECONOMY AND ENVIRONMENT/LECTURE, DISCUSSION

Addresses historic intersection of industrialization, urbanization, and ecology. Examines economic, environmental, and political conflict over the past 300 years to gain historic depth on contemporary issues. London air pollution, New York City water supplies, mechanized fishing in the Pacific, European coal mining, and American forestry product industries will be considered. Ms. Emel/Offered periodically

226/326 SEMINAR: ENVIRONMENTAL HAZARDS—THEORY, MODELS, AND APPLICATIONS/LECTURE, DISCUSSION

Theory and methods of hazard assessment and social response. Covers natural, technological, and global hazards and includes such topics as human vulnerability, disasters, public perceptions, social amplification of risk, social learning, and corporate management of risk. Mr. Polsky/Offered every year

228/328 MANAGEMENT OF ARID LANDS/LECTURE, SEMINAR

The world's drylands present special development problems. Prone to degradation, they face the difficult task of providing support to a rapidly growing population. The history, demography, behavioral characteristics, social and livelihood systems, and physical constraints of dryland ecosystems are analyzed. Evaluates management strategies, identifying the obstacles constraining their growth, and assesses the future development and application potential of drylands. Mr. Johnson/Offered every other year

232/332 LANDSCAPE ECOLOGY/LECTURE, DISCUSSION

Considers the relationships between spatial patterns in landscape structure (physical, biological, and cultural) and ecological processes. Role of ecosystem pattern in mass and energy transfers, disturbance regimes, species' persistence, applications of remote sensing, and GIS for landscape characterization and modeling are examined. Mr. Rogan/Offered every year

234/334 THE GEOGRAPHY OF FIRE/LECTURE, DISCUSSION

Fire has always been, and will always be a 'HOT' topic. This course will be one of the first of its kind offered at a university to both undergraduate and graduate students. It examines relationships between wildfire from a physical, biological and cultural perspective. Topics include: the chemistry and physics of fire, fire behavior (including the influences of fuel and weather), the ecological effects of fire, the cultural and institutional framework of fire management, and the cultural nature of wildfire in society. Mr. Rogan/Offered every year

237/337 FEMINISM, NATURE, AND CULTURE/SEMINAR

Studies feminist theories of science, rationality, and morality—particularly as they apply to nature-society relations. Examines cultural politics of nature across time and space. Film, literature, government reports, and academic

writing show how images and “truths” about nature and society are constructed. Ms. Emel/Offered every other year

239/339 COUNTRY AND CULTURE/LECTURE, DISCUSSION

The landscape can be read! Be it a vast tropical rain forest with an occasional clearing or an intensively cultivated river valley in New England, the rural landscape is the product of an interaction between people (culture) and place (environment). The course traces the evolution of rural landscapes through time and space from early hunter-gatherers to modern suburban encroachment on rural areas. Emphasis is placed on ecological and cultural principles that help to explain the technocultural modification of rural places. Mr. Johnson/Offered every other year

240/340 THE END OF AMERICA: LOS ANGELES/LECTURE, DISCUSSION

The modern city reflects the values and forces that have shaped Western culture in its westward course. Los Angeles—the western end of American space—provides a unique model for examination of the American cultural spirit. This course explores changing notions of the city and the American attitude toward the culture of cities through close examination of history, geography, literature, and film associated with Los Angeles. Mr. Bowden/Offered every other year

242/341 CITIES AND CULTURE: THE EUROPEAN CITY/LECTURE

Examines the city as a center of cultural stability and cultural change as reflected in urban form. Focuses on the city as a center of creativity. Includes London, Edinburgh, Paris, Vienna, and Manchester. Mr. Bowden/Offered every other year

244/344 GENDER, WORK, AND SPACE/SEMINAR

Examines how gender, race, class, and ethnicity divide the work force and how location and space shape and sustain such divisions. Evaluates competing explanations for why

women, youths, and minorities hold jobs that differ distinctly from jobs held by other workers. Explores how a geographic understanding of gender, class, and ethnicity can help explain the current restructuring of the global economy. Ms. Hanson/Offered every other year

247/347 QUANTITATIVE METHODS IN GEOGRAPHY: INTERMEDIATE/LECTURE, LABORATORY

Continues development, begun in Geography 110 of computer-based methods in geographical analysis. Focuses on bivariate and multivariate regression, discriminant analysis, factor analysis, log-linear models, and analysis of spatial and temporal data. Includes lab work with PCs, spreadsheets, and SPSS-X statistical software package. Prerequisite: GEOG 110. Meets skill requirement for geography majors and graduate students. Mr. Ratick/Offered every year

250/350 TECHNOLOGY AND ENVIRONMENTAL ASSESSMENT/SEMINAR

A survey of analytic techniques used in evaluating environmental conditions and the impacts of technology. These techniques consist of formal methods such as cost-benefit, risk-benefit, cost effectiveness, and decision analysis. They also include methods used to elicit human judgement and behavioral responses in evaluating complex environmental and technical systems. Draws on case studies and teaches students to make both quantitative and qualitative assessments. Mr. Ratick/Offered every year

254/354 URBAN TRANSPORTATION: PROBLEMS AND PROSPECTS/LECTURE, DISCUSSION

Without mobility both people and cities would die. How and why have we created cities in which mobility is so difficult. This course examines urban transportation planning and evaluates proposals for solving transportation problems. Includes transportation and land use; energy, equity, and environmental issues; the almighty automobile; and the politics of urban transportation. Ms. Hanson/Offered every other year

255/310 QUALITATIVE RESEARCH METHODS, SKILLS AND APPLICATIONS/LECTURE, DISCUSSION

Students learn to select, combine, apply and evaluate a broad repertoire of selected qualitative research methods from geography, anthropology, planning, cultural studies, women's studies, international development and the social sciences more generally. Also includes more environmentally oriented methods (also selected) such as mapping, planning, landscape and narrative techniques used in environmental history. These methods, as well as the overview and analytical framework presented in the course, should be useful in community service, public social and environmental services, commercial and private sector applications and academic research settings. A skill or specialization course in the geography major, and a graduate student skill course. Cross-referenced with International Development and Social Change and Environmental Science and Policy. Ms. Rocheleau/Offered every year

256/356 GLOBAL ECONOMIC GEOGRAPHIES/SEMINAR

Explores dynamics of economic interdependence across regions and nations. Analyzes the geographical characteristics of global production, international trade, financial flows, and technological innovation. Ms. Aoyama/Offered every other year

257 INTERNET GEOGRAPHY: SOCIOECONOMIC IMPACTS OF INFORMATION TECHNOLOGIES/LECTURE/DISCUSSION

Examines the role and impact of the Internet on the geography of production and consumption in the contemporary period. Has the Internet Revolution put an end to geography? Has it exacerbated social polarization? How has it helped those in the developing world? How have new technologies changed our industries, daily lives, and social relationships? Designed to generate discussions on some of the most contested aspects of new technologies. Readings and discussions will include the

development of internet infrastructure, electronic commerce, video games, mobile computing, social movements, accessibility, and the digital divide. Ms. Aoyama/Offered every other year

258/358 UTOPIAN VISIONS, URBAN REALITIES: PLANNING CITIES FOR THE 21ST CENTURY/LECTURE, DISCUSSION

Although utopia literally means "no place," utopian thinking has always involved certain material expressions of daily living. The legacy of early urban utopian thinkers is evident in contemporary approaches to urban policy, including urban form and design, redevelopment, urban politics, and planning. In this course students will grapple with the ideals of urban planning in the context of the complexities of contemporary cities. Mr. Merrifield/Offered every other year

260/360 QUANTITATIVE MODELING/LECTURE, DISCUSSION/LABORATORY

Investigates the quantitative and qualitative potential of using mathematical computer models to guide policy in human/environment systems. Students learn to think with a systems perspective while translating their own conceptual models to mathematical models to computer models. Includes lab sessions in the computer room and lectures/discussions in the classroom. The course culminates in written and verbal presentations of student projects. Students gain technical proficiency in the programming language VBA and other software designed for sustainability analysis. Students can apply what they have learned in calculus and statistics. Prerequisites are Mathematics 121 or Mathematics 125, graduate standing, or permission. A skill or specialization course in the geography major. Cross-referenced with International Development. Mr. Pontius/Offered every year

261/361 DECISION METHODS FOR ENVIRONMENTAL MANAGEMENT AND POLICY/LECTURE, DISCUSSION

See Environmental Science Policy 261. Mr. Ratick/Offered every year

**262/366 URBAN ECONOMIC GEOGRAPHY/
SEMINAR**

The past two decades have been a period of particular vitality in development of theory, new perspectives, and alternative discourse about the city and the contemporary urban experience. This course examines recent developments in urban geography and details a political economy of urbanization in advanced capitalist societies. Staff/Offered every other year

**263/363 ATMOSPHERE AND CLIMATE CHANGE/
SEMINAR**

Introduces atmospheric dynamics and the impact of climate change on weather "on the ground." Two climate related research projects on snow-cover dynamics and precipitation and temperature variations at the Tower Hill Environmental Research Station are conducted. Special focus is the identification of the role of varying weather patterns as driving force of processes in the hydrosphere, and the quality of climate prediction models for assessing future weather patterns. Students are required to read, present and discuss selected topics. At the end of the course individual topics are presented as posters in the framework of a panel discussion with outside experts.

**271/371 GROUNDWATER HYDROLOGY AND
MANAGEMENT/LECTURE, DISCUSSION**

Introduces geological and hydrological factors controlling the occurrence and development of groundwater, and the methods and impacts of groundwater management. Ms. Emel/Offered periodically

**277/377 GENDER, ENVIRONMENT, AND
DEVELOPMENT/SEMINAR**

Considers gendered identities, affinities, control, responsibility, knowledge, labor, and benefits in the definition, use, management, and protection of environments. Readings, lectures, and discussion focus on the distinct perspectives and concerns of women and men as actors in natural resource use and management and in local, regional, and global ecological transformations linked to economic restructuring. Ms. Rocheleau/Offered every year

**280/380 URBAN ECOLOGY: CITIES AS
ECOSYSTEMS/LECTURE, DISCUSSION**

Explores ecology and physical geography of cities as systems built, inhabited, and managed by people. This class of ecosystem is often neglected except in studies of pollution, yet it is home to many of the world's people and to a surprising number of plant and animal species as well. Readings, lectures, discussion, and written work combine landscape and systems ecology with physical and urban geography to broaden our understanding of city environments, both present and possible.

Ms. Rocheleau/Offered periodically

**281/381 TROPICAL ECOLOGY/LECTURE,
DISCUSSION**

Examines structure and function of several major tropical ecosystems (rain forests, savannas, wetlands, coastal zones, deserts) from the perspective of systems ecology. Readings, lectures, and discussions focus on energy flows, material cycles, and species diversity and distribution. Explores pattern and process in tropical ecosystems (especially forests and savannas) under conditions of widespread land use change. Ms. Rocheleau/Offered every other year

282/382 ADVANCED REMOTE SENSING

Builds upon the principals and methods taught in Digital Image Processing. The main topics of this course will be radiometry, digital image processing, vegetation indices and biophysical remote sensing. The course will primarily deal with passive systems, including hyperspectral and thermal, although active systems (microwave) will also be covered. A key element of the course will be the integration of lecture materials and laboratory exercises into a student research project. Mr. Rogan/Offered every year

**284/384 ENVIRONMENT AND DEVELOPMENT IN
THE MIDDLE EAST AND NORTH AFRICA/LECTURE,
DISCUSSION**

From Afghanistan to Morocco, farmers, herders, and city dwellers have modified their environment in an effort to develop the region's resources. While many of these

changes have been destructive, others have produced sustainable agricultural systems. Today population growth, infrequent zones of high agricultural potential, the constraints imposed by aridity, and limited mineral resources (except for oil) restrict development opportunities. The successes and failures that have followed from the efforts of Middle Eastern governments and societies to cope with these limitations and to control desertification, overgrazing, salinization, deforestation, and urban blight constitute the focus of this course. Prerequisite: any geography nature-society core course (e.g., 105, 184) or in international development, or by permission of instructor. Mr. Johnson/Offered every other year

285/385 SPATIAL DATABASE DEVELOPMENT

Examines the procedures and technologies used for spatial database development in support of Geographic Information Systems (GIS). Topics covered include Geodesy and spatial georeferencing, the Global Positioning System (GPS), control and detail surveys, Plane Surveying, Photogrammetry and topological digitizing. Prerequisites: Introduction to GIS or permission of instructor. Mr. Eastman/Mr. Marcano/Offered every year

289/389 DEVELOPMENT POLICY/SEMINAR

A research seminar for students with some background in development theory. The seminar critically examines recent tendencies in development theory and practice, emphasizing policies pursued by the IMF, World Bank and WTO. Mr. Peet/Offered every year

290/399 DIRECTED RESEARCH: NASA UAV PROJECT

Students will actively participate in actual NASA missions involving Unmanned Aerial Vehicles functioning as suborbital imaging platforms. The focus of the course will be image analysis for precision agricultural applications and/or forest-fire management. Long distance learning with research scientists based at the NASA Ames Research Center in California is part of the course curriculum.

Students also will have an opportunity to be based in the UAV Applications Center in the NASA Research Park in California for a one-week period during spring break. Digital Image Processing is a prerequisite. Mr. Herwitz/Offered every year

292/392 DIGITAL CARTOGRAPHIC DESIGN AND PRODUCTION/LECTURE, LABORATORY

Studies production and design of full-color, publishable-quality maps using computer technology, with special attention paid to meeting the requirements for offset lithographic printing and Web display. Students design and produce monochrome and full-color maps on computer using professional graphic-design software. Prerequisite: GEOG 085, 181 or 190, or permission of instructor. Mr. Eastman, Ms. Gibson/Offered every other year

293/383 DIGITAL IMAGE PROCESSING/LECTURE, LABORATORY

Examines the range of digital procedures used for the restoration, enhancement and classification of remotely sensed imagery. A strong emphasis is placed on the acquisition of skills that can be applied in the development of data layers for GIS. Prerequisite: GEOG 190. Mr. Eastman/Offered every year

294/394 SEMINAR IN CARTOGRAPHY/SEMINAR

Examines philosophical and practical concerns in both historical and contemporary mapping. Involves project work. Content changes from year to year. Permission of instructor required. Mr. Steward/Offered periodically

300 ADVANCED TOPICS IN PHYSICAL GEOGRAPHY/SEMINAR

Graduate-level examination of theories and concepts of physical geography. Focuses on research interests of the faculty and students taking the course. Prerequisite: permission of instructor. Mr. Lewis/Offered periodically

302 THE EMPIRE OF GLOBALIZATION

This class will explore the "Empire" of globalization through a detailed examination of Michael Hardt and Toni Negri's bold new book, "Empire" (Harvard University Press,

2001). Imperialism, as we knew it, may be no more, but “Empire” is alive and well. Hardt and Negri contend that the contemporary economic, cultural, and legal transformations taking place across the globe is an order fundamentally different from the European dominance of the previous era. Rather, today’s “Empire” draws on elements of U.S. constitutionalism, with its foundation in hybrid identities and expanding frontiers. “Empire” explores the radical shift in concepts that form the basis of modern politics, such as sovereignty, nation, and people. Hardt and Negri link this philosophical transformation to cultural and economic changes in postmodern society—new forms of racism, identity and difference, terrorism, migration, communication, and control. “Empire” is also a work of utopianism, looking beyond the regimes of exploitation and control that characterize today’s world order, seeking an alternative political paradigm and basis for a truly democratic global society. Mr. Merrifield/Offered every year

314 RESEARCH DESIGN, RESEARCH METHODS/ SEMINAR

Covers major topics in empirical social research design and methodology, including problem definition, research strategies, measurement, sampling, data-collection techniques and procedures, and proposal writing. Staff/Offered every year

318 EXPLANATION IN GEOGRAPHY/SEMINAR

Explores several main types of explanation including positivist, existentialist, Marxist, feminist, and postmodernist. Focuses on tensions between structural and nonstructural explanation and the integration of theory and empirical facts. Meets first-year core course requirement for geography graduate students. Mr. Peet/Offered every year

330 SEMINAR IN CULTURAL AND POLITICAL ECOLOGY/SEMINAR

Ecological transition, the increasing incorporation of nature into human culture—is the point of departure for an examination of the

theory, method, and policy relevance of cultural ecology. Mr. Johnson, Mr. Turner/Offered periodically

335 FEMINIST GEOGRAPHY/SEMINAR

Explores the intersection of feminism and geography. Topics include feminist theory, epistemological questions in feminist geography, social movements, welfare politics and the state, and work. Ms. Hanson/Offered every other year

342 SEMINAR IN LAND-USE/COVER CHANGE IN GLOBAL CHANGE SCIENCE/SEMINAR

Examines land-use/cover change as the foundation for global change, environmental change, and sustainability science, and as the human-environment geographic subfields of these sciences. Topics addressed: international agendas, use-cover change globally and regionally, proximate and distal causes of change, theories of change, and spatially explicit modeling of change. Mr. Turner/Offered periodically

343 SEMINAR IN HUMAN DIMENSIONS OF GLOBAL CHANGE: IMPACTS AND SOCIETAL RESPONSES/SEMINAR

Explores societal responses to global environmental change. Addresses impact analysis, adaptation vs. adjustment, surprise, vulnerability analysis, policy analysis, social learning, precautionary strategies, and international institutions and regimes. Mr. Polsky/Offered periodically

344 SPECIAL TOPICS IN ENVIRONMENT AND DEVELOPMENT/SEMINAR

Address specific topics relevant to critical and practical studies of environment and development. The course will operate on a seminar format with scope to accommodate reading groups on specific themes within the class. The topics will include, but will not be limited to the following: women’s movements and environment and women in environmental movements; environmental dimensions of the World Social Forum and related movements; the commons and common property in local and global forestry; indigenous knowledge, environment and local/global science; inter-

national case studies of sustainable development alternatives; regionally focused studies of environment and development in selected regions within Africa, Caribbean, Central and South America. Ms. Rocheleau/Offered every year

345 QUANTITATIVE REVOLUTION: EXAMINATION OF BENEFITS AND LIMITATIONS OF STATISTICAL ANALYSIS FOR HUMAN GEOGRAPHY RESEARCH/ SEMINAR

Students will investigate the consequences of specifying regression models that violate assumptions, and the range of alternative specifications that permit insight into the ways in which both large- and small-scale factors influence and are influenced by social and natural processes. Mr. Polsky/Offered every year

348 HISTORICAL-GEOGRAPHICAL MATERIALISM/ SEMINAR

This seminar sets up a dialogue between Marxism and globalization. It will explore Marxian theories of financial and geographical crises for delineating our globalized political-economic order. As a central plank, we will mobilize the conceptual tools outlined in David Harvey's *Limits to Capital* (1982). Weekly classes will examine commodity logistics, theories of overproduction and accumulation, crisis formation in the credit and financial system, and will culminate with an exploration of geopolitical and geographical "third-cut" crises. En route, we will try to bring Harvey's text to bear on two other more recent Marxist treatises on the current global condition: Toni Negri's "Empire" (2000) and Robert Brenner's "The Boom and the Bubble" (2002). The former rests its political response on an emerging "global multitude," while the latter shows how the economics of "Empire" is always fraught with instability and danger, buoyed by absurd levels of debt and stock market overvaluation. In their entirety, these three texts tell us plenty about the economic threats and political possibilities immanent in the latest conjuncture of capitalist development. Mr. Merrifield/Offered every other year

349 ADVANCED TOPICS IN SPATIAL ANALYSIS/ SEMINAR

See International Development, Community and Environment 349. Mr. Ratick/Offered every semester

351 SEMINAR IN RESOURCE GEOGRAPHY: THEORY AND METHOD/SEMINAR

Examines theories and methods of resource estimation, allocation and management, providing coverage of the scholarly literature of the field. Ms. Emel/Offered every other year

353 INTERNATIONAL POLITICAL ECOLOGY/ LECTURE, DISCUSSION

Integrates theory and practice from cultural ecology, political economy, and ecological science, from local to global scale, based on readings and papers in social theory (feminist, structuralist, poststructuralist), policy, social/environmental movements, ecological paradigms, environmental management, sustainable development, and conservation. Reading, writing, and discussion combines theory and case studies ranging from rural, agrarian cases to urban, industrial contexts. Ms. Rocheleau/Offered every other year

355 SOCIAL FORESTRY, AGREOCLOGY, AND DEVELOPMENT/SEMINAR

Considers importance of trees and forests to social and ecological well-being of people, emphasizing interests of rural people in Africa, Asia, and Latin America. Examines forest resources as a growing focus of political and economic action at local, national, and international levels. Concentrates on case-study examples of technical and policy innovations in social forestry and agroforestry. Mr. Rocheleau/Offered every other year

362 SEMINAR ON GLOBALIZATION

Examines contemporary literature on global economic change. Both theoretical and empirical literature on governance, interdependence, labor, and networks will be analyzed. Discussions intended to generate geographic paradigms to better understand the relationship between the global and the local. Ms. Aoyama/Offered every other year

365 GRADUATE SEMINAR IN ECONOMIC GEOGRAPHY/SEMINAR

Reviews historical and contemporary debates in economic geography. Emphasis is placed on understanding conceptual frameworks and main assumptions of a variety of pertinent theories, including that of industrial location, regional development, industrial organization, and technological innovation. Ms. Aoyama/Offered every year

368 SEMINAR: THE DEVELOPMENT OF WESTERN GEOGRAPHIC THOUGHT/DISCUSSION

Examines principal orientations, themes, and debates within emergent professional geography communities in the 19th and 20th centuries and the professional structure of the field in research, educational, and applied contexts. Primarily for graduate students entering into geography. Mr. Turner/Offered every year

370 ANIMAL AGRICULTURE/LECTURE, DISCUSSION

Animals and humans have a long history of close association, and humans rely on animals for food, fiber, labor, and companionship. Animals play an important role in efforts to increase food production and to improve diet quality in support of a growing human population. Examines terrestrial and aquatic animal systems, and the theory and practice of their intensified exploitation. Mr. Johnson/Offered every other year

389 RESEARCH THEMES IN GIS/LECTURE, DISCUSSION

Traces recent GIS history to identify major research themes. Primarily an exploration of research literature to prepare for Ph.D. oral examination in GIS. Prerequisite: permission of instructor. Mr. Eastman/Offered every year

391 GIS AND INTERNATIONAL DEVELOPMENT/SEMINAR

Required for M.A. in GIS and International Development. The fall seminar is restricted to GISDE M.A. students and focuses on research projects. Mr. Pontius/Offered every year

396 SEMINAR IN THE MAPPING SCIENCES/SEMINAR

Reconsiders the fundamental assumptions and actions underlying the mapping sciences in the

light of recent and significant technological developments. Examines purposes behind mapping and the interlinking demands of data, design, structures, scale, generalization, aesthetics, information, and communication. Permission of instructor required. Mr. Steward/Offered periodically

397 ADVANCED TOPICS GIS/LECTURE, LABORATORY

Covers major research and application issues in GIS. Topics include geodesy, projections, change and time series analysis, error sources, assessment and propagation, analysis under conditions of uncertainty, and multicriteria and objective decision making. Prerequisite: Introduction to GIS or permission of instructor. Mr. Eastman/Offered every year

GOVERNMENT AND INTERNATIONAL RELATIONS

Department Faculty

Mark C. Miller, J.D., Ph.D., *chair: American government, politics of law and the judiciary, Congressional politics, lawyers and politics*

Brian J. Cook, Ph.D.: *U.S. public policy, public administration, environmental politics, bureaucratic politics*

Beverly C. Grier, Ph.D.: *African politics, international development, women's studies, U.S. black politics*

Sharon Perlman Krefetz, Ph.D.: *U.S. urban politics, suburban politics, housing policies, women and politics*

Paul W. Posner, Ph.D.: *Latin-American politics, democratic theory, comparative environmental politics*

Srinivasan Sitaraman, Ph.D.: *international relations, international organizations, including the U.N., international political economy*

Valerie Sperling, Ph.D.: *post-Soviet and East European politics, comparative politics, social movements and collective action, women's studies*

Kristen Williams, Ph.D.: *international relations theory, arms control and international security, nationalism and ethnic politics, U.S. foreign policy*

Emeriti

John C. Blydenburgh, Ph.D.

Cynthia H. Enloe, Ph.D.

Adjunct Faculty

Kiran Asher, Ph.D.

Douglas J. Little, Ph.D.

Simon Payaslian, Ph.D.

Robert J.S. Ross, Ph.D.

Undergraduate Program

The department explores some of the most important political questions that face people of all countries. Why are some governments effective and others not? What causes wars or solidifies peace? Can public policies affect relations between women and men, and between different racial groups? Most important, who decides such questions and how? The department offers courses that address these questions and others—in international relations, in American politics, and in comparative politics. The curriculum provides theories and concepts, relevant information, and tools for investigation for students to develop their own answers.

Major Requirements

The major provides a general introduction to the study of politics, and an opportunity to explore one particular subfield in greater depth, allowing students to concentrate in one area of politics. The three subfields are: American politics and public policy; comparative politics; and international relations. Students must take 14 courses, with leeway choosing particular courses. Most courses are in the government department, but the few from other disciplines complement the study of politics and explore the relationships between government and other sectors of society. The 14 required courses—11 in government, one in economics, one in history, and one from related disciplines—are divided into two categories.

General government requirements: seven courses, including one subfield introductory course (in addition to the introductory course in one's chosen subfield); the economics course, ECON 010 A Comparative Approach; one government course in normative political

theory (GOVT 155, 156, 203, or 206); one course in research methods and skills, GOVT 107; and three government courses from outside one's chosen subfield.

Subfield specialization requirements: seven courses, including the introductory course to one's chosen government subfield (Introduction to American Government, Introduction to Comparative Politics, or Introduction to International Relations); four additional government courses in one's chosen subfield (one of these four must be in the form of a seminar in one's subfield, taken in the junior or senior year); and two courses, related to the subfield, from outside the government department. (A list of related courses is available from the department office; one must be in history. The other one should be chosen with one's adviser.)

Subfield Descriptions

American Politics

The American Politics and Public Policy subfield includes study of basic political and governmental institutions, major political processes, law, and important patterns of political behavior. Subfield specialists become familiar with each of these three broad areas, learning how the political system operates, why public policy emphasizes particular values and allocates certain resources to different groups and individuals, and who benefits and who loses in policy outcomes in policy areas such as housing, the environment, and the economy. The federal structure of American government and the diversity of the American population also require familiarity with state politics, urban and suburban politics, law and politics, and women and politics.

Comparative Politics

Comparative politics has two intertwined meanings at Clark: 1) it means immersion in the study of politics in two or more countries outside the United States, and 2), it means deliberately comparing important factors, such as social movements, issues, or policy-making processes in two or more countries. Subfield specialists are given the chance to delve into

politics experienced by elite and ordinary people inside other countries. While the United States is intentionally kept off center stage in comparative politics courses, most of them raise specific questions about American politics—its policies, experiences, and assumptions—as they are seen from the vantage point of people in countries such as South Africa, Mexico or Russia. The study of comparative politics alerts the specialist to the varieties but also the surprising similarities in how power is gained, and how it is justified and wielded in different countries.

International Relations

Government majors who specialize in international relations address global politics at two intersecting levels: 1) formal state-to-state behavior in terms of diplomacy, war and peace, intervention, law, and organization; and 2) translation of global interactions in terms of trade, development, social movements, refugees, human rights, ecology, and media. Subfield specialists engage in rigorous theoretical investigations of competing analytic traditions as they attempt to explain ongoing problems of world order. Some of these problems are local, such as boundary disputes; some are regional, such as regional economic integration; and some are global, such as poverty, the greenhouse effect, or militarization. Similarly, the actors in world politics are diverse: national governments, subnational governments, international organizations, private interest groups, social classes, and religious movements.

Minor Requirements

The government minor requires a minimum of six courses within the department. One must be an introductory course (GOVT 050, 069, or 070); one must be either in political theory (GOVT 155, 156, 203, or 206) or in research methods (GOVT 107); and four others can be in any assortment of subfield areas (including

two at the 200 level). An internship supervised by a government faculty member, as well as approved political science courses taken as part of an accredited study-abroad program, may count toward the minor.

Internships And Study Abroad

Internships in American local, state, and federal government agencies, in independent public interest groups, in private law firms, and in companies can earn students government major credit. Study abroad may also fulfill major requirements. To receive government major or minor credit, a student must work with his or her faculty adviser, or another faculty member in the department.

Honors In Government

Juniors with strong academic records may apply to the honors program which expands research and writing skills through an in-depth systematic analysis of one specific topic. Students can achieve honors by successfully completing the honors program, which involves researching, writing, and defending a senior thesis. Interested students should obtain guidelines in the department office and must submit applications by March 15 of the junior year.

Nonmajor Concentration

Certain fields of study can be taken as concentrations in addition to and complementary to the government major. Some concentration requirements may also fulfill government-major requirements. (See specific catalog sections on these concentrations.)

Student Handbook

The government department publishes a handbook, which has a more extensive description of major requirements, programs, courses, and faculty, as well as other information relevant to the major. Copies are available in the department office.

General Courses

- 102 First-year Seminar
- 107 Research Methods
- 155 Roots of Political Thought
- 156 Democratic Theory
- 203 Seminar: Political Theorists and Their Theories
- 206 Recent Political Theory
- 297 Senior Honors Thesis in Government and International Relations
- 298 Internship
- 299 Independent Study

American Politics And Public Policy

- 050 Introduction to American Government
- 154 The Politics of Public Policy in the United States
- 157 The Politics of Environmental Issues
- 170 American Political Thought and Behavior
- 171 Urban Politics: People, Power, and Conflict in U.S. Cities
- 172 Suburbia: People and Politics
- 175 Women and U.S. Politics
- 204 The American Presidency
- 205 U.S. Campaigns and Elections
- 209 The United States since 1968
- 213 Policy Analysis in the United States
- 215 State and Local Government and Politics
- 221 Seminar: Urban-Policy Internship
- 223 Seminar: Suburban Policy Issues
- 251 U.S. Social Movements and Interest Groups
- 252 U.S. Political Parties
- 253 U.S. Judicial Politics
- 255 The Politics of U.S. Congress
- 272 U.S. Constitutional Law: Civil Liberties
- 273 U.S. Constitutional Law: Governmental Powers
- 274 The Supreme Court in American Society
- 276 Environmental Law
- 281 Seminar: The Politics of Policy Implementation

- 282 Seminar: Housing and Community Development
- 291 Seminar: Lawyers and American Politics
- 293 Seminar: Constitutional Democracy
- 296 Seminar: Advanced Topics in American Politics

Comparative Politics

- 070 Introduction to Comparative Politics
- 103 Africa and the World
- 110 Introduction to Women's Studies
- 117 Revolution and Political Violence
- 125 Tales from the Far Side
- 136 Sub-Saharan Africa: Issues and Problems
- 176 Introduction to Latin-American Politics
- 177 Transitions to Democracy
- 178 South Africa: History and Contemporary Politics
- 179 Comparative Foreign Policy
- 186 Upheaval in Eastern Europe
- 208 Comparative Politics of Women
- 210 Violence in the Middle East
- 212 Politics, Culture and Society in Latin America
- 214 Mass Murder and Genocide under Communism
- 216 Comparative Environmental Politics
- 218 Seminar: Child Labor and the State: Comparative Perspective
- 219 Seminar: Politics and Development of Southern Africa
- 227 Global Politics of Development
- 228 Comparative Politics of Race, Ethnicity, and Gender
- 230 Armenian Genocide
- 232 Politics and Religion in the Balkans
- 233 State Building in the Middle East and the Balkans
- 256 Corruption, Crime and Chaos in Contemporary Russia
- 257 Comparative Courts and Laws
- 286 Seminar: Advanced Topics in Comparative Politics
- 290 Inter-American Relations
- 293 Constitutional Democracy

International Relations

- 069 Introduction to International Relations
- 103 Africa and the World
- 146 The U.N. and International Law
- 147 World Order and Globalization
- 179 Comparative Foreign Policy
- 226 International Political Economy
- 227 Global Politics of Development
- 238 U.S. Foreign Policy 1914
- 240 Human Rights and International Politics
- 241 History of Human Rights
- 242 Human Rights and Transitional Justice
- 245 Americans, Israelis and Arabs
- 246 The United States and the Persian Gulf
- 247 Seminar in Global Capitalism
- 250 U.S. National Security
- 280 Super Power Surrendering? Russia and the World
- 285 Seminar: Special Topics in Peace Studies
- 289 Seminar: Advanced Topics in International Relations

Courses

050 INTRODUCTION TO AMERICAN GOVERNMENT/LECTURE, DISCUSSION

Introduces the American governmental system. Overviews contemporary structure, operation and performance of national institutions, including the courts. Addresses American political culture, voting and elections, the evolution of federalism, law and politics, and important public issues, such as civil rights, civil liberties, and economic change. Mr. Cook, Mr. Miller/ Offered every year

069 INTRODUCTION TO INTERNATIONAL RELATIONS/LECTURE, DISCUSSION

Introduces basic concepts of international relations, e.g., the balance of power, and broader alternative perspectives by which security can be viewed. Explores: the development of the nation's state system, World War I, World War II, the Cold War, the Post-Cold War period

and issues such as human rights, environment, gender, war and economics. Ms. Williams, Mr. Sitaraman/ Offered every year

070 INTRODUCTION TO COMPARATIVE POLITICS/ LECTURE, DISCUSSION

The study of comparative politics is based upon the premise that we can better understand domestic political dynamics and political phenomena in general by comparing political conditions across and within (subnational units) countries. Specifically, comparative politics investigates the following types of questions: In what ways do groups and individuals participate in politics? Why have some countries developed stable democratic political systems, while others remain authoritarian or experience frequent changes in government? What relationship does a country's political organization have with its economic performance, social stability and relations with other countries? In exploring these questions, we will compare both developed and developing countries in terms of political institutions (constitutions, executives, legislatures, courts and political parties), political behavior (voting and collective action), political culture, and political economy. Mr. Posner/Offered every year

102 FIRST-YEAR SEMINAR-TOPICS VARY Staff/Offered periodically

103 AFRICA AND THE WORLD/LECTURE, DISCUSSION

Examines the historical and contemporary relationships of sub-Saharan Africa and Europe, the United States, the Middle East, and parts of Asia, and Latin America. The course explores issues such as global involvement in Africa's civil wars, genocide in Rwanda, Islamic fundamentalism, the role of the World Bank and International Monetary Fund in Africa's development, and the impact of the HIV/AIDS pandemic. The role of the United Nations and nongovernmental organizations in development, conflict, and humanitarian concerns is also explored. Ms. Grier/Offered every other year

107 RESEARCH METHODS/LECTURE, DISCUSSION

Considers the logic of the research process: from formulating and stating testable hypotheses and operationalizing concepts to collecting and analyzing appropriate data. Explores both concepts and techniques, including statistical analysis. Students design research projects independently or in teams, and analyze data. Mr. Cook, Ms. Krefetz/ Offered every semester

110 INTRODUCTION TO WOMEN'S STUDIES/LECTURE, DISCUSSION

Provides a broad, global overview of women's studies, its questions, its findings, considering women's experiences and roles in different generations and sociocultural communities. Ms. Sperling/Offered every year

117 REVOLUTION AND POLITICAL VIOLENCE/LECTURE, DISCUSSION

Analyzes the concept, the causes, and the process of revolution. Is revolution inevitable? How does it differ from terrorism, guerrilla warfare or coups? This course examines the Russian and Chinese revolutions as 20th-century prototypes; comparisons are then drawn to more recent revolutions in Eastern Europe, the Middle East, Latin America and South Africa. Ms. Sperling/Offered every year

125 TALES FROM THE FAR SIDE/LECTURE, DISCUSSION

See International Development 125. Ms. Asher/Offered every year

136 SUB-SAHARAN AFRICA: ISSUES AND PROBLEMS/LECTURE, DISCUSSION

Explores issues and problems confronting sub-Saharan Africa, including the legacy of colonialism, the establishment of nation-states, and the role of parties and the military in the politics of selected countries. Examines women's roles, class conflict, alternative development strategies, the environment, regional conflicts, and the global economy. Ms. Grier/Offered every other year

146 THE UNITED NATIONS AND INTERNATIONAL LAW

The objective of this course is to develop a solid understanding of how the United Nations has evolved; what are its organizational struc-

tures; who are the major actors; what are its structures and processes? In conjunction, this course also analyzes the concept and bases of international law. Namely, how international law sets the general procedures and develops institutions for the conduct of international relations. The course also provides needed background for the Model U.N. program. Mr. Sitaraman/offered every year.

147 WORLD ORDER AND GLOBALIZATION/DISCUSSION

Explores the ways in which states have attempted to establish order in an anarchical international system. An overriding challenge to the existing world order, particularly in the post-Cold War period, comes from globalization (economic, political, social issues). Is globalization leading toward a single system of values, or fragmenting into incompatible pockets of pluralist identities? Ms. Williams/Offered every year

154 THE POLITICS OF PUBLIC POLICY IN THE UNITED STATES/LECTURE, DISCUSSION

Where do policy ideas originate? How do coalitions form in support or opposition to a policy? Do the dynamics of policy making and public action vary across issues? The focus is on understanding public-policy development and implementation at the national level in the United States, including why some policies fail to develop or why they fail to take effect as intended. The approach includes assessment of prominent theories of policy development, and in-depth analysis of cases. GOVT 050 strongly recommended as a prerequisite. Mr. Cook/Offered every other year.

155 ROOTS OF POLITICAL THOUGHT/LECTURE, DISCUSSION

Western political thought from the classic Greek period to early modern liberalism and socialism is analyzed through contributions by major thinkers: Plato, Aristotle, Machiavelli, Hobbes, Locke, Rousseau and Marx. Staff/Offered every year

156 INTRODUCTION TO DEMOCRATIC THEORY/LECTURE, DISCUSSION

This course fulfills the political-theory requirement for the government department. It traces the development of democratic theory from its origins in ancient Athens to the present day. We will examine how diverse conceptualizations of democracy address key issues in democratic theory and practice, including the constitution of liberty, equality, and political authority, the definition and actualization of citizenship, the proper relationship between the individual and the state, the proper balance between majority and minority rights, and the best means for citizens to participate in democratic government. We will consider each of these key issues through our reading of influential works in the development of democratic theory and our active discussion of these works. This reading and discussion will enable us to broaden both our understanding of the democracy in which we live and our role as citizens within it. Mr. Posner/Offered every other year

157 THE POLITICS OF U.S. ENVIRONMENTAL ISSUES/LECTURE, DISCUSSION

Why have environmental policies emerged or failed to emerge? What is distinctive about the politics of environmental issues? The primary focus is national environmental politics and policy making in the United States. Students explore in detail just a few prominent environmental issues, such as pesticides, air pollution, and natural-resource conservation, to determine the character of policy action, public ideas, political leadership, and institutional development. Assignments emphasize class discussion, oral presentations, group simulations, and short written analyses. GOVT 050 strongly recommended as a prerequisite. Mr. Cook/Offered every other year.

170 AMERICAN POLITICAL THOUGHT AND BEHAVIOR/LECTURE, DISCUSSION

Explores factors that have shaped a distinctive American political culture—our shared values, beliefs, attitudes, and expectations of government. Considers how this culture is transmit-

ted through the process of political socialization, in which our political orientations and behavioral predispositions are formed.

Examines how political culture and socialization are connected to contemporary political attitudes and behavior. Ms. Krefetz/Offered periodically

171 URBAN POLITICS: PEOPLE, POWER, AND CONFLICT IN U.S. CITIES/LECTURE, DISCUSSION

Focuses on the major socioeconomic and political forces that affect city politics in the United States. Topics include: the growth and decline of the cities; fiscal constraints; federal and state urban policies; political machines; reforms; the Post-Reform Era; the community power debate; regimes and coalition building; and efforts by African-Americans and Latinos to gain political incorporation. Ms. Krefetz/Offered every year

172 SUBURBIA: PEOPLE AND POLITICS/LECTURE, DISCUSSION

Focuses on the causes and consequences of the rapid growth of suburbs in the United States after World War II, impact on the nature of metropolitan areas. What are the characteristics of the people who live in suburbs? Is suburban homogeneity a myth or reality? How are suburbs governed? What is suburban political participation like? What are the patterns of policy making on issues such as education, zoning, and property taxes? Ms. Krefetz/Offered every other year

175 WOMEN AND U.S. POLITICS/LECTURE, DISCUSSION

Explores the political attitudes, behavior, and status of women in the United States. Views on the nature of women and their “proper” role in society and the state, set forth by classical political philosophers in ancient times, are contrasted with ideas introduced by women’s rights theorists, beginning in the 18th century. Focus is on contemporary U.S. politics, including: gender differences in political socialization and political participation, the gender gap in voting preferences, women as politicians and bureaucrats, and the influence of women on public policies. Ms. Krefetz/Offered every year

176 INTRODUCTION TO LATIN-AMERICAN POLITICS/LECTURE, DISCUSSION

As an introduction to the study of Latin-American politics, this course demands no prerequisites except a basic curiosity about the region and a desire to learn about its development over the past century. In an effort to understand contemporary politics in the region, we consider alternative theoretical explanations for patterns of development as well as analyze the historical role played by influential political actors, including the Church, the military, economic elites, workers and peasants. Some of the fundamental questions we will be asking include: What is the relationship between a country's social and economic conditions and its political system? Why have so many Latin-American nations alternated between democratic and authoritarian regimes? What is the relationship between Latin America and the so-called "First World," particularly the United States? In attempts to answer these questions, the course will examine the political systems of Argentina, Brazil, Chile, Mexico and Guatemala. Mr. Posner/
Offered every other year

177 TRANSITIONS TO DEMOCRACY/LECTURE, DISCUSSION

How can a dictatorship become a democracy? What challenges face countries emerging from repressive rule? Using first-hand accounts, historical analyses and contemporary films, this course explores the role of grassroots movements, elites, and the international context in struggles to create and sustain democracy. The focus will be on transitions from totalitarian and authoritarian regimes in Europe and military dictatorships in Latin America. Ms. Sperling/Offered every other year

178 SOUTH AFRICA: HISTORY AND CONTEMPORARY POLITICS/LECTURE, DISCUSSION

Acquaints students with the forces that have shaped the political system of contemporary South Africa. Examines colonialism, apartheid, African nationalism and the antiapartheid struggle, the role of African women, politics since the election of Mandela, South Africa's

economic and political role in the southern Africa region, and Western involvement in the country during apartheid and postapartheid eras. Ms. Grier/Offered every other year

179 COMPARATIVE FOREIGN POLICY/LECTURE, DISCUSSION

Explores forces that influence the formulation and execution of foreign policy. Is it international setting or domestic factors which determine foreign policy? What are options and constraints in devising a foreign policy in the post-Cold War era? Explores the foreign policy-making process in various countries, including Europe and Eurasia. Staff/Offered periodically

186 UPHEAVAL IN EASTERN EUROPE/LECTURE, DISCUSSION

Within a dramatic and short space of time, Eastern Europe was transformed from a homogenized communist bloc to a region brimming with diversity, complexity, and unfulfilled potential. The course examines the transformations ranging from Stalinism to pluralism. Why did the revolutions of 1989 occur? What are the difficulties in transition to market economies and democracy? Ms. Sperling/
Offered periodically

203 POLITICAL THEORISTS AND THEIR THEORIES/SEMINAR

Focuses on one or two people whose theories have influenced ideas about power, governing, liberty, equality, and justice. Explores their lives and the societies and events that shaped their ideas. Theorists who have been featured include Hannah Arendt, Alexis de Tocqueville, Erich Fromm and Karl Marx. Staff/Offered periodically

204 THE AMERICAN PRESIDENCY/LECTURE, DISCUSSION

Examines the president's changing role in American politics, evolution of the modern presidency, selection and nomination process, relationships with other political institutions, and presidential character. Explores proposed reforms for the future. Prerequisite: GOVT 050 or permission of instructor. Mr. Cook/Offered every other year

205 U.S. CAMPAIGNS AND ELECTIONS/LECTURE, DISCUSSION

Examines election and campaigns from a number of different perspectives: the theoretical underpinnings of American elections, their historical development, the rules by which campaigns are governed, and the strategies that candidates follow in pursuit of office. Although the focus is almost exclusively on national (presidential and congressional) elections, it is the goal of the course to examine the process of elections from a standpoint that will enable students to understand and analyze the electoral process at various levels of government. The primary system, the role of the media, and the issue of campaign finance, among other topics, are also explored. Staff/Offered periodically

206 RECENT POLITICAL THEORY/LECTURE, DISCUSSION

Examines a central normative category of modern democracy from a number of different perspectives: historical development of a distinctly modern public sphere, the liberal and civic republican accounts of the public sphere, and feminist and postmodern critiques. Staff/Offered every other year

208 COMPARATIVE POLITICS OF WOMEN/LECTURE, DISCUSSION

Explores the roles, priorities, strategies, and theories of women in the politics of industrialized and developing countries. Causes for changes or lack of genuine changes in women's political influence are investigated to shed new light on those countries' political systems. Discusses the politics of democratization, sexuality, labor, and cross-race alliances. One or more previous courses in government or in women's studies is strongly advised. Staff/Offered every other year

209 AMERICA IN OUR TIME: THE UNITED STATES SINCE 1968/LECTURE, DISCUSSION

See History 209. Mr. Little/Offered periodically

210 VIOLENCE: THE CASE OF THE MIDDLE EAST/LECTURE, DISCUSSION

Religious affiliation and the infusion of its absolutist perspectives with the tenets of the nation-state have created societies in the Middle East away from the secularized and inclusive models creating increasing possibilities of extreme participation. Studying these issues within the Middle East allows us the additional benefit of current events, but it will provide a window to other areas and levels of politics where violence is equally prevalent. Staff/Offered periodically

212 POLITICS, CULTURE AND SOCIETY IN LATIN AMERICA/LECTURE, DISCUSSION

Provides an overview of the key economic and political issues confronting Latin America today: economic development and social inequality, international debt, the breakdown of democracies as well as transitions from authoritarian rule, revolutions, and the role of working-class, women's, peasant, and ethnic movement. Draws on the analytical perspectives of the political economy and cultural politics to develop a nuanced and self-reflexive understanding of the complex realities of Latin-American politics. Ms. Asher, Mr. Posner/Offered periodically

213 POLICY ANALYSIS/LECTURE, DISCUSSION

How can society better determine what public problems exist? What policies will respond best to those problems? What impacts have public policies had? These are the questions that animate the policy analysis enterprise, which aims to improve public decision making. Introduces the structure, methods, and subject matter of the field, helps students sharpen their analytic skills, and explores several important public-policy issues. Students present and discuss concepts and methods and engage in an intense analysis simulation. Prerequisite: GOVT 107 or other social-science methods course, or permission of instructor. Limited to juniors and seniors. Mr. Cook/Offered every other year

214 MASS MURDER AND GENOCIDE UNDER COMMUNISM/LECTURE, DISCUSSION

Is communism inherently genocidal? Do communism and mass murder necessarily go hand in hand? This course explores the origins,

motivations, and consequences of the brutal and deadly policies adopted in three very different communist regimes (the Soviet Union, China and Cambodia). We will also consider potential ways to avert mass killing and genocide. Ms. Sperling/Offered every other year

215 STATE AND LOCAL GOVERNMENT AND POLITICS/LECTURE, DISCUSSION

Overviews the operation of state and local governments, explaining distinctive features of states in terms of their individual political, economic, historical, legal, and demographic characteristics. Focuses on how these features explain state political systems in the present and how they are likely to shape the states of the future. Focuses on Massachusetts and other Northeastern states. Prerequisite: GOVT 050. Staff/Offered periodically

216 COMPARATIVE ENVIRONMENTAL POLITICS/LECTURE, DISCUSSION

Over the course of the past several decades environmental degradation and sustainability have assumed major significance as public-policy issues, both within nations and internationally. However, given the transnational nature of many environmental problems, addressing such problems has proven to be particularly complex and difficult. This course examines the complex nature of environmental policy from both an international and comparative perspective. We will examine the specific challenges that the international nature of environmental problems poses for policy makers. We will also compare different national experiences and strategies for addressing environmental issues with an eye toward identifying the factors, which impede or facilitate success in promoting effective environmental policy. Mr. Posner/Offered every other year

218 CHILD LABOR GLOBALIZATION/SEMINAR

This course raises and attempts to answer a number of questions. Is globalization good or bad for child labor? Or is the record mixed? Taking a comparative perspective, the course looks at different forms of child labor in a number of developing countries, from carpet

weaving in Iran, prostitution in the Philippines, and child soldiering in Liberia to factory work in Mexico and to plantation agriculture in Brazil and South Africa. It seeks to determine the impact of global trade, new communications and information technologies, World Bank and International Monetary Fund policies, and the rise of nonstate actors on child labor; and explore the role of states in an increasingly globalized political economy. Ms. Grier/Offered every year.

219 POLITICS AND DEVELOPMENT IN SOUTHERN AFRICA/SEMINAR

Explores in a comparative way various issues in the politics and development of the Southern Africa region: race, class, gender, ethnicity, democratization, land reform, labor migration, the HIV/AIDS pandemic, the environment, child labor, the World Bank, and the role and effectiveness of the Southern African Development Community. The countries covered include: South Africa, Lesotho, Swaziland, Botswana, Namibia, Zimbabwe, and Mozambique. Ms. Grier/Offered every year

221 URBAN POLICY/SEMINAR AND INTERNSHIP

Focuses on how cities make and implement policies and deliver services, exploring especially downtown redevelopment, neighborhood revitalization, and housing policies. Students intern at a Worcester redevelopment, housing or other policy-making organization. Students discuss course readings and share experiences, combining perspectives of scholars and practitioners. GOVT 220 or permission of the instructor is required. Limited to 12 students, with preference given to juniors and seniors. Ms. Krefetz/Offered every other year

223 SUBURBAN POLICY ISSUES/SEMINAR

Explores politics and policy making in suburban communities, especially zoning and land use, education, and property taxes. Students conduct original research in suburbs of Worcester and Boston. Prerequisite: GOVT 172 or permission of instructor. Ms. Krefetz/Offered periodically

226 INTERNATIONAL POLITICAL ECONOMY

Focuses on political determinants of international trade and finance, and to a lesser extent it is also about the economic determinants of international politics. In this course, we will learn how the international economic system has evolved and examine how we arrived at this pivotal juncture called the “global political economy.” We will study how the international political mechanism and historical forces led to the acceptance of certain economic models, theories, and ideas. Particularly, the focus will be on actual international economic processes, their inner workings, and interlinkages. We will analyze how domestic political alignments influence a country’s trade and tariff policies. Why do some countries make decisions that seem to defy conventional economic logic? Why do some countries choose to trade more and why do some countries choose to restrict international trade? More importantly, in this course we will try and unravel the mysteries behind the “international market system.” How does it work? And what are its benefits and consequences? Mr. Sitaraman/offered every year.

227 GLOBAL POLITICS OF DEVELOPMENT/LECTURE, DISCUSSION

Expands the boundaries of development studies beyond local- or national-level phenomenon, to explore a key dimension of contemporary world politics. Extends the basic historical political economy framework, developed in GOVT 145, to deal in greater depth with the ideas, interests and institutions that comprise the international development “regime.” Staff/Offered periodically

228 COMPARATIVE POLITICS OF RACE, ETHNICITY, AND GENDER/LECTURE, DISCUSSION

Explores politics of ethnicity and race for groups as different as Asian-Americans, black Britons, Latin-American Indians, Bosnians, and others. Investigates government policies and popular movements. Explores the political implications of ideas about masculinity and femininity for race, ethnicity, and state power.

Previous study of international development, comparative politics, history, sociology, or women’s studies recommended. Staff/Offered every other year

230 THE ARMENIAN GENOCIDE/LECTURE, DISCUSSION

Examines the various dimensions of the Armenian Genocide, through scholarly analyses, survivor narratives, journalistic accounts, and other sources. Through the course, students develop a detailed understanding of the actual events of the genocide, its social and political causes, and its immediate and long-term impact on individual Armenians and the Armenian nation, generally. Students will also treat in-depth the initial external response to the genocide, its political and legal aftermath, and the significant effort still made by the Turkish successor state to deny that the genocide occurred. Mr. Payaslian/Offered periodically

232 RELIGION AND POLITICS OF THE BALKANS/LECTURE, DISCUSSION

Examines the political development of the Balkans as a region and specifically looks at three distinct transitions toward liberal democracy in the post-Soviet era in the countries of Greece, Yugoslavia, and Turkey. Because religion has played a key political role in the region, the course will also examine the area’s distinct religious, cultural and ethno-national identity formations arising during the 19th and 20th centuries when the region was part of the Ottoman Empire. Staff/Offered periodically

233 STATE BUILDING IN THE MIDDLE EAST & THE BALKANS/LECTURE, DISCUSSION

This course compares state building efforts in five countries in the Middle East and the Balkans: Iran, Israel, Egypt, Greece and Turkey. Staff/offered periodically

238 U.S. FOREIGN RELATIONS SINCE 1914/LECTURE, DISCUSSION

See History 238. Mr. Little/Offered every year

240 HUMAN RIGHTS AND INTERNATIONAL POLITICS/LECTURE, DISCUSSION

In recent years, questions of human rights and humanitarian concerns have been central to debates on such varied issues as U. S. relations with China, NATO's role in the former Yugoslavia, and the United Nation's place in the international system. The more general question of whether foreign policy should be based strictly on national interests or also include moral considerations has been longstanding, but it is particularly relevant in a post-Cold War world where national interests and priorities are less clear. Appeals to students interested in learning more about current policy disputes and in further exploring the impact of ideas in international politics. Staff/Offered periodically

241 HISTORY OF HUMAN RIGHTS

See History 241.

242 HUMAN RIGHTS AND TRANSITIONAL JUSTICE

See Sociology 242.

245 AMERICANS, ISRAELIS AND ARABS/LECTURE, DISCUSSION

Studies U.S. foreign policy and diplomacy towards Israel and the Arab countries of the Eastern Mediterranean, including the Arab-Israeli peace process. After a brief introductory section, the course focuses on events in the region since the end of World War II. Staff/Offered periodically

246 THE UNITED STATES AND THE PERSIAN GULF/LECTURE, DISCUSSION

After a brief introductory section on the history and geography of the region, and U.S. interests in the area, this course will focus on U.S. relations with Iran, Iraq, and the Arabian peninsula since the end of World War II. Topics to be discussed include the U.S. role in the development of Middle Eastern oil, particularly in Saudi Arabia; the collapse of the Shah and the crisis in our relations with Iran; and "Desert Shield," "Desert Storm," and U.S. efforts to get rid of Saddam Hussein. The goal is to give students an understanding of what happened, and why. Staff/Offered periodically

247 SEMINAR IN CAPITAL GLOBALIZATION AND FOUL PLAY

See Sociology 288.

250 U.S. NATIONAL SECURITY/LECTURE, DISCUSSION

Explores domestic and international politics of American national security policy, including the use of force, arms control, and diplomacy. Examines the historical background and principal policy-making institutions in security policy particularly the gap between civilians and the military. Case studies focus on the Vietnam War, the Persian Gulf War, and Bosnia. Ms. Williams/Offered every year

251 U.S. SOCIAL MOVEMENTS AND INTEREST GROUPS/LECTURE, DISCUSSION

Examines the strategies of social movements and interest groups for mobilizing resources and lobbying the state. Considers theoretical frameworks used to study mobilization and action, including the pluralist, power elite, and "cycle" theories for interest groups, and collective action, resource mobilization, and political process models of social movements. Staff/Offered periodically

252 U.S. POLITICAL PARTIES/LECTURE, DISCUSSION

Examines historical development of the party system in the United States and the structures and activities of the two major parties. Examines historical successes and failures of various types of third parties and comparative analysis with parties in other advanced democracies. Prerequisite: GOVT 050 or permission of instructor. Mr. Cook/Offered periodically

253 U.S. JUDICIAL POLITICS/LECTURE, DISCUSSION

Explores the relationships between the courts and other sectors of the American political system. Studies how judges are selected, how courts handle civil and criminal cases, judicial policy making, and how interest groups use the courts. Mr. Miller/Offered every other year

255 THE POLITICS OF U.S. CONGRESS/LECTURE, DISCUSSION

Examines contemporary politics of the U.S. Congress from individual and institutional perspectives. Includes Congressional elections, differing views of representation, House-Senate differences, Congressional policy making, relationships between Congress and the courts, the presidency, the bureaucracy and interest groups, and the future of the institution. Mr. Miller/Offered every other year

256 CORRUPTION, CRIME AND CHAOS IN CONTEMPORARY RUSSIA

Explores Russia's current challenges, including the difficulty of changing a communist party-run dictatorship into a democracy, transforming a socialist economy into a capitalist one, and handling the rise of nationalism and separatism within its own borders. Coverage of the Soviet Union, from its creation in 1917 to its collapse in 1991, is included. Ms. Sperling/Offered every other year

257 COMPARATIVE COURTS AND LAW/LECTURE, DISCUSSION

Examines the court systems, the legal systems, and the role of the legal profession in various North American and Western European countries, including Canada, the United States, the United Kingdom, France, and Germany. Comparisons include the concepts of judicial review, constitutionalism, and the role of the courts in the broader governmental system. The course will also explore how the European Union and the Canadian Supreme Court will integrate the legal system from both the Common Law and Civil Law legal traditions. Mr. Miller/Offered every other year

272 U.S. CONSTITUTIONAL LAW: CIVIL LIBERTIES/LECTURE, DISCUSSION

Focuses on the historic and contemporary role of the U.S. Supreme Court in interpreting the U.S. Constitution. Includes cases dealing with freedom of religion and speech, privacy, discrimination, and equal protection. Students may take GOVT 272 and 273 in any order. Replaces 254/History 239. Mr. Miller/Offered every other year

273 U.S. CONSTITUTIONAL LAW: GOVERNMENTAL POWERS/LECTURE, DISCUSSION

Focuses on the historic and contemporary role of the U.S. Supreme Court in interpreting the U.S. Constitution. Includes cases dealing with powers of Congress and the President, federalism, and economic rights. Students may take GOVT 272 and 273 in any order. Replaces 254/History 239. Mr. Miller/Offered every other year

274 THE SUPREME COURT IN AMERICAN SOCIETY/LECTURE, DISCUSSION

Examines various aspects of the role that the Supreme Court of the United States plays in our system of government and in our broader social order. Examines various topics, such as the role of the Court in producing social change, the jurisprudence of individual justices, and recent trends in the Court's decisions on federalism, administrative law, and statutory interpretation. Also explores the aftermath of the Court's decision in *Bush v. Gore*. Mr. Miller/Offered periodically

276 ENVIRONMENTAL LAW/LECTURE, DISCUSSION

See Environmental Science and Policy 276.

Staff/Offered every other year

280 SUPERPOWER SURRENDERING? RUSSIA AND THE WORLD/LECTURE, DISCUSSION

Studies Soviet foreign policy from the country's uncertain beginnings as the first Marxist state—to its dominant position as a superpower and its recent dissolution and collapse. Considers problems, goals, and trends of successive phases of Soviet foreign policy. Examines efforts of successor states, especially Russia and the Ukraine, to devise viable foreign-policy strategies in the aftermath of the disintegration of the USSR. Ms. Sperling/Offered periodically

281 THE POLITICS OF POLICY IMPLEMENTATION/ SEMINAR

Explores, in-depth, the philosophical, legal, political, and organizational challenges of implementing public policy and enforcing public law. Focuses specifically on the political and managerial challenges administrative agencies

face. Students confront implementation dilemmas through case studies and research on agencies and policies. Prerequisite: GOVT 154 or permission of instructor. Mr. Cook/Offered every other year

282 HOUSING AND COMMUNITY DEVELOPMENT/SEMINAR

Focuses on social, economic, and political factors that shape the federal government's housing and community development policies and their implementation by local governments in metropolitan areas of the United States.

Explores: the myths and realities of public housing; urban renewal; gentrification; linkage; homelessness; redlining; exclusionary zoning; and racial and gender discrimination in housing. Ms. Krefetz/ Offered every other year

285 SPECIAL TOPICS IN PEACE STUDIES/SEMINAR

See Peace Studies 285. Staff/Offered periodically

286 ADVANCED TOPICS IN COMPARATIVE POLITICS/SEMINAR

Focus changes each year depending on faculty interest. Has focused on "International Feminist Thinking" and "Politics of Nationalism." Open to juniors and seniors and graduate students. Can be taken twice. Mr. Posner, Ms. Grier, Ms. Sperling/Offered every year

289 ADVANCED TOPICS IN INTERNATIONAL RELATIONS/SEMINAR

Focuses on historical-theoretical approaches to, and problems in, global politics. Topic varies each year. Substantial (20-30 page) research paper required. Generally restricted to junior and senior international relations majors; others may be admitted with permission of the instructor. Ms. Williams, Mr. Sitaraman, Mr. Little/Offered every year

290 INTER-AMERICAN RELATIONS/SEMINAR

This course examines the historical and contemporary relations between the United States and Latin-American countries. After a brief historical overview of U.S. foreign policy toward Latin America, we will explore various themes central to U.S.-Latin American relations. Topics include the impact of U.S. hege-

monic rule; revolutionary challenges to U.S. hegemony; economic relations, including Dollar Diplomacy and NAFTA; defending national security, democracy and human rights; the "war on drugs"; and the Latin Americanization of the United States. While we will seek a deeper understanding of common patterns in U.S.-Latin American relations, the course will also emphasize the uniqueness of national experiences. Mr. Posner/Offered every other year

291 LAWYERS AND POLITICS/SEMINAR

Examines the role played by lawyers in American politics. Topics include lawyers in private practice, lawyers in legislatures, lawyers as judges, lawyers as lobbyists, government-agency lawyers, and academic lawyers. Mr. Miller/Offered every other year

293 CONSTITUTIONAL DEMOCRACY/SEMINAR

Writing a constitution means creating a people. It is at once a very conservative and a very daring undertaking. It is also the most fundamental of political acts. What considerations are within the purview of the constitution maker? What consequences follow from founding choices? Through analyses of the constitutions and constitutional foundings of the United States, India, and South Africa, and through our own constitution-writing effort, we will confront these questions, and the complexities of blending constitutionalism and democracy. Prerequisites: GOVT 050 and GOVT 155, or permission of instructor. Limited to juniors and seniors. Mr. Cook/Offered periodically

296 ADVANCED TOPICS IN AMERICAN POLITICS/SEMINAR

Focus changes with each offering, depending on faculty interest. A past topic was "Politics of Rich and Poor." Open to juniors and seniors. Staff/Offered periodically

297 HONOR THESIS

298 INTERNSHIP

299 INDEPENDENT STUDY

HISTORY

Department Faculty

Janette Thomas Greenwood, Ph.D., chair: *American social history, African-American history, and history of the South*
Debórah Dwork, Ph.D.: *modern European history, history of the Holocaust*
Amy Froide, Ph.D.: *early modern Britain; European women; European social history*
Robert Gellately, Ph.D.: *modern German history, history of the Holocaust*
Wim Klooster, Ph.D.: *Atlantic World; early modern Europe; Caribbean history*
Douglas J. Little, Ph.D.: *U.S. diplomatic history, U.S. 20th-century history*
Drew R. McCoy, Ph.D.: *early American history, U.S. intellectual and political history*
Simon Payaslian, Ph.D.: *Armenian History, U.S. diplomatic history, British empire, Middle East*
Amy Richter, Ph.D.: *U.S. women's history, U.S. urban history*
Paul S. Ropp, Ph.D.: *Chinese social and intellectual history*

Visiting Faculty

Edward Kissi, Ph.D.: *International history of genocide, African history, U.S. diplomatic history, Southeast Asia*

Affiliate and Adjunct Faculty

John C. Brown, Ph.D.
Paul Burke Jr., Ph.D.
Robert Dykstra
Richard B. Ford, Ph.D.
Everett Fox, Ph.D.
Beverly C. Grier, Ph.D.
George M. Lane, M.A.
Jack Larkin
Thomas P. Massey, Ph.D.
Diane Roazen, Ph.D.
Alden Vaughan

Emeriti

George A. Billias, Ph.D.
Daniel R. Borg, Ph.D.
Robert F. Campbell, Ph.D.
Paul Lucas, Ph.D.

Undergraduate Program

The History Department offers a traditional major, a minor, and elective courses for non-majors. Undergraduate majors must choose one of three areas of geographic specialization—United States, European, or global history. These specializations may be linked to course work in interdisciplinary concentrations such as Asian studies, Holocaust studies, or women's studies. The History Department also offers a general track within the major for those seeking certification in elementary education.

The major exposes students to different fields of knowledge, offering training in critical thinking; the accumulation, organization, and analysis of information; and in clear and concise writing. The major provides an excellent background for graduate school, teaching, careers in law, government, journalism, international affairs, museum, library and archival work, and business. With courses on every major geographical area of the world, and with conceptual approaches ranging from political and diplomatic to social, intellectual, and cultural, the History Department offers a rich and diverse curriculum.

The department also participates in Clark's Higgins School of Humanities, allowing students to enjoy the support and benefits of the school.

Major Requirements

All history majors must take 10 history courses and two related nonhistory courses distributed as follows:

1. HIST 120 (Writing History), preferably before their junior year.
2. Five courses inside their geographic area of specialization. Of these five courses, at least three must be at the 200 level and at least one must be a seminar or a proseminar.
3. At least one course in each of the two geographic areas different from their own area of specialization. (For example, a student specializing in European history would need to take at least one U.S. and one global

history course). At least one of these two courses must be at the 200 level.

4. At least one course, either inside or outside their area of specialization, devoted primarily to the period before 1800. An up-to-date list of courses that meets this requirement may be found in the History Department Handbook.
5. A capstone course during their senior year. This requirement may be fulfilled by writing an honors thesis, or (with the permission of the chair and instructor) by taking a research seminar or directed research course in the student's area of specialization. The capstone requirement cannot be met by any course used to meet conditions one through four.
6. Two courses outside history in fields related to the student's area of specialization. These courses must be approved in advance by the student's history adviser and must be taken after the student has declared herself or himself to be a history major.

Majors select an adviser from the history faculty and they consult regularly, especially before registering each semester. The student and adviser design a coherent sequence of courses, and choose nonhistory courses that enhance the area of concentration. They also can make decisions about advanced research courses and enrollment in the departmental honors program.

Major Requirements: General Track for Elementary Education Certification

This track may be taken by any student who is preparing to become certified to teach in Massachusetts at the elementary level and is available only to those students who are completing the education program in elementary education. Like the regular History major, the General Track also requires 10 courses in History and two courses outside of History. The requirements for the General Track are as follows:

HIST 120 Writing History

HIST 011 Survey of U.S. History to 1865

HIST 012 Survey of U.S. History Since 1865

HIST 070 Our European Roots I (Western Civ. To 1600)

HIST 071 Our European Roots II (Western Civ. Since 1600)

Education/HIST 283 Ways of Knowing: Social Science

One thematic course in each of three areas (1) U.S. history; (2) European history; and (3) Non-Western history. Two must be at the 200 level and at least one must be a proseminar or seminar to be taken junior year.

Capstone requirement completed during the student-teaching practicum, under the supervision of the student's clinical faculty adviser in the Education Department and the student's adviser in the History Department.

One course in American literature

One course in European or Non-Western Literature

The Honors Program

The honors program provides advanced courses for outstanding history majors, especially for aspiring professional historians. The program is appropriate for any career requiring resourcefulness and analytical and writing skills.

Students must meet the general requirements for the major, choose a field of specialization, and earn four honors credits as part of, or in some cases in addition to, the 10 required history courses. Students enter the program by taking a prehonors seminar or proseminar. Admission into the honors program is contingent upon the completion of a prehonors seminar and upon evidence of outstanding work in other history courses. Building on the prehonors course, students write an extensive research thesis (two course credits) under the adviser's supervision. Seniors take a directed reading course (one course credit) related to their thesis topic. The program culminates

with an oral defense of the student's thesis. The honors committee includes the student's thesis adviser and one other department member. If the committee finds the thesis or examination unsatisfactory, the student only receives ordinary history credit for the thesis and directed readings course.

The Prehonors Seminar Or Proseminar

To enroll in the honors program, students must take one of the department's seminars or proseminars that emphasize the development of research, analytical, and writing skills. A significant part of these courses is devoted to the writing and revising of research papers.

Students should consult with their advisers or the department chair in selecting a course that satisfies the prehonors requirement. This course is normally taken during the junior year.

Undergraduate Minor

Students who wish to obtain an undergraduate minor in history must meet the following requirements: a minimum of six history courses, at least three at the 200 level, and no more than four in any one geographical area. At least one of the six courses must be a seminar or a proseminar.

Teacher Certification

Students may receive certification to teach high-school history in Massachusetts and perhaps other states. Interested students should speak to the department chair.

Five-Year B.A./M.A. Program

The History Department participates in the University's five-year B.A./M.A. program. Information about eligibility, application procedures, and M.A. requirements, is available in a separate brochure and from the department chair.

Graduate Program

The program focuses on two broad areas: American history and modern European history, with special emphasis on the history of the Holocaust. The department is affiliated with the American Antiquarian Society, which has

one of the country's finest research libraries with more than 750,000 volumes and valuable manuscripts relating to pre-1876 American history. There are a dozen smaller libraries in Worcester with combined holdings of more than one million volumes and other research facilities in Boston, Providence, and New Haven.

Graduate course work includes reading seminars (colloquia), research seminars, and individual tutorials for both reading and research purposes. Graduate students may also register in upper-division undergraduate courses at a graduate level that requires more intensive work. First- and second-year students in the doctoral program take three courses each semester, one of which must be expressly devoted to the production of a research paper. Faculty advisers help incoming students design their programs, which may include courses in other departments or colleges in the Worcester Consortium.

Master of Arts

Students must complete six courses (for eight credits) and a one-year residence; either submit two substantial research papers prepared in two seminars, which are jointly equivalent to the master's thesis, or submit a master's thesis; and pass the required oral examination. (Residency requirements for part-time M.A. students are defined in terms of courses taken.)

Ph.D. candidates who have passed their preliminary examination (whether or not they will continue with a dissertation) may also receive the degree of master of arts.

Doctor of Philosophy

Enables students to master the discipline of history through research, reading, and teaching. In addition to meeting the 12-course requirements outlined above, a student who enters without an M.A. degree usually spends at least two full-time years at Clark, must satisfy the language requirement, teach at the college level, pass the preliminary examination, and write a doctoral dissertation within seven years of matriculation. (Residency for part-time

Ph.D. students is defined in terms of courses taken.)

Students concentrating in American history must pass an examination in one foreign language, normally French, German, Spanish, or Russian. Those specializing in European history must pass examinations in two foreign languages, normally French and German. An examiner in each language determines if the student is proficient enough to use the language as a research tool. All language requirements must be satisfied before the preliminary oral examination is scheduled.

At the end of the first year, there is a required one-hour oral exam based on the first year's course work whether or not students have an M.A.

Some teaching experience at the college level is desirable for the Ph.D. degree. Students normally meet this requirement in their second and third years as teaching assistants.

New students, with their advisers, devise an appropriate plan of preparation for their doctoral qualifying examination, which is normally taken before the end of their third year.

Examination details are in the History Department Graduate Program Handbook. The exam constitutes the preliminary examination required by the Graduate Board. Students who pass may, upon request, receive the master of arts.

Students are advised to consider dissertation topics during their years of residence and to choose a possible dissertation adviser as soon as possible. The process of writing a dissertation is outlined in Format Regulations for Theses, Dissertations, and Research Papers at Clark University, which may be obtained from the thesis format adviser in the Graduate School Office.

Courses

Undergraduate courses are either survey courses for first and second year students, numbered with two digits or 100-199, or advanced courses numbered 200-299. The latter carry no prerequisites (unless specifically noted), but gener-

ally carry a heavier workload than lower level courses. Some 300-level graduate courses are open to juniors and seniors with permission of the instructor. Proseminars have limited enrollment and combine reading, discussion, and written reports. Seminars are research courses.

History Course Listing by Fields of Specialization

Method and Theory

120 Writing History

U.S. History

- 011 Survey of U.S. History to 1865
- 012 Survey of U.S. History since 1865
- 016 Race and Ethnicity in American History
- 021 Voices from Slavery/First-Year Seminar
- 036 The Strange World of Thomas Jefferson/First-Year Seminar
- 037 19th-Century America through Women's Eyes/First-Year Seminar
- 111 Intro to Women's Studies
- 113 Urban Landscapes: The City in American History from Colonial to Modern Times
- 145 U.S. History through the Novel
- 201 Era of the American Revolution
- 202 The Early American Republic
- 203 Seminar in U.S. Urban History: Colonial—Modern Period
- 204 Interpretations of American History/Proseminar
- 209 America in our Time: The United States Since 1968
- 210 Research Seminar in Early American History
- 211 American Consumer Culture
- 213 Gender and the City in the United States
- 214 The American Civil War
- 215 The Age of Lincoln/Proseminar
- 216 American History in Comparative Perspective/Proseminar
- 217 Reconstruction: America After the Civil War, 1865-1877/Research Seminar
- 219 History of American Women

221 From Slavery to Freedom
 222 History of the South
 223 The Civil Rights Movement
 224 History of African-American Women/Seminar
 231 America in the Gilded Age, 1877-1900/Proseminar
 238 U.S. Foreign Policy
 239 U.S. Constitutional Law: Civil Liberties
 240 U.S. Constitutional Law: Government Powers
 243 American Antiquarian Society/Seminar in American Studies
 245 Americans, Israelis and Arabs
 246 The United States and the Persian Gulf
 287 Advanced Topics in International Relations/Seminar

European History

070 Our European Roots: Western Civilization from the Ancient Hebrews through the Renaissance and Reformation
 071 Our European Roots: Western Civilization from the 17th Century to the Present
 100 Ancient Greece and Perseus/First-Year Seminar
 110 Early Modern Europe
 117 Introduction to Hebrew Bible: Narrative and Law
 140 England to 1688
 155 History of Russia
 157 The Age of Nero
 174 The Jewish Experience
 175 The History of the Holocaust to 1933
 176 The Holocaust in Historical Perspective
 228 Women's Voices: Early Modern Britain/Seminar
 229 Women in European History
 230 Armenian Genocide
 238 Women's Voices in Early Modern Europe/Seminar
 249 Women and Work in Pre-Industrial Europe
 252 The British Empire

253 20th-Century Europe
 256 Politics of the Soviet Union
 257 Jews and Christians in the Ancient World
 258 Gender, Class, and Race in Modern Britain
 259 Modern Germany
 260 Rescue and Resistance during the Holocaust/Seminar
 261 Jewish Children in Nazi-Occupied Europe/Seminar
 262/362 Science, Medicine, and Race in Modern Europe/Seminar
 263 Nazi Terror in Germany and Europe
 264 Intimacy and Dictatorship/Seminar
 265 Life and Death in the City: Occupied Europe, 1939-1945/Seminar
 267 Religious Experience in the Ancient World
 268 The Holocaust: Issues and Controversies/Seminar
 270 Home Fronts in WWII/Seminar
 273 Life Under German Occupation/Seminar
 274 The Fate of the Shtetl During the Holocaust/Seminar
 276 Modern Jewish History and Thought
 280 Soviet Foreign Policy
 284 The Holocaust and Its Aftermath: 1933-Present

Global History

033 Confucianism, Daoism, Buddhism: Cultural Heritage of China/First-Year Seminar
 062 War and Peace in the Middle East/First-year Seminar
 074 The World and the West
 077 Introduction to Latin American Civilization
 080 Introduction to Modern Asia
 084 Japanese Civilization
 130 Genocide
 135 History of Armenia
 150 Jerusalem in History and Imagination
 161 History of India
 162 The History of the Modern Middle East

- 173 The History of Racial Thought in Modern Europe
- 178 South Africa: History and Contemporary Politics
- 179 Africa to 1500
- 180 History of Modern Africa
- 181 Chinese Civilization
- 182 Modern China
- 184 Modern Japan
- 225 Modern Africa/Seminar
- 226 Comparative Colonialism/Seminar
- 233 Confucianism, Daoism, Buddhism: Intellectual History of China/Lecture, Discussion
- 235 The Atlantic World
- 241 History of International Human Rights
- 248 History of the Middle East/Seminar
- 255 Modern Africa/Seminar
- 275 20th-Century Latin America/Proseminar
- 277 The History of Zionism in Israel/Seminar
- 279 Late Imperial China
- 281 The People's Republic of China
- 282 Chinese Women in Literature and Society
- 286 The Vietnam War
- 288 Seminar in Chinese History
- 291 Nationalism and Revolution in Southeast Asia: Cambodia and Vietnam/Seminar

Courses

011 SURVEY OF U.S. HISTORY TO 1865/LECTURE, DISCUSSION

A survey of American history from the earliest 17th-century settlements through the end of the Civil War. Introduces students to historical inquiry and stimulates creative inquiry into the origins and character of American civilization. Fulfills the historical perspective requirement. Mr. McCoy/Offered every year

012 SURVEY OF U.S. HISTORY 1865/LECTURE, DISCUSSION

Chronicles the rise of America to world power, focusing on key internal and foreign policy developments and conflict. Private and public

life and the diversity of Americans' experiences are highlighted. Attention is given to general political, social, economic, and intellectual developments. Fulfills the historical perspective requirement. Ms. Richter, Ms. Greenwood/Offered every year

016 RACE AND ETHNICITY IN AMERICAN HISTORY/LECTURE, DISCUSSION

Explores the influence that racial and ethnic patterns have on American history from colonial times to the present. Largely through first-hand accounts, students will explore the experiences of various ethnic and racial groups in American history. Fulfills the historical perspective requirement. Ms. Greenwood/Offered every year

021 VOICES FROM SLAVERY/FIRST-YEAR SEMINAR

Explores the nature and dynamic of American slavery, largely from first-hand accounts of those who experienced and observed the slave regime of the American South in the 19th century. Designed to introduce students to the historical controversies concerning slavery and to expose students to the primary sources that historians use to understand slavery and the slave regimes. Fulfills the values perspective. Ms. Greenwood/Offered periodically

033 CONFUCIANISM, DAOISM, BUDDHISM: THE CULTURAL HERITAGE OF CHINA/FIRST-YEAR SEMINAR.

Explores the three major intellectual traditions of China—Confucianism, Daoism and Buddhism—with special attention to the influence of Confucian, Daoist and Buddhist values on China's cultural and artistic traditions. After reading some of the major early philosophical and religious writings in these three traditions, we will explore the profound impact of Confucian, Daoist and Buddhist values on Chinese culture, as seen especially in painting, sculpture, poetry and fiction. Fulfills the aesthetic perspective. Mr. Ropp/Offered every other year

036 THE STRANGE WORLD OF THOMAS JEFFERSON/FIRST-YEAR SEMINAR

Thomas Jefferson is one of the most familiar and increasingly controversial figures in American history. This seminar explores in-depth two related subjects: Jefferson's life and career (with emphasis on the intersection of the public and the private), and the central place of Jefferson's reputation and image in American culture from his time to ours. Students will read widely in recent scholarship on Jefferson as well as in primary sources. Fulfills the historical perspective requirement. Mr. McCoy/Offered periodically

037 19TH-CENTURY AMERICA THROUGH WOMEN'S EYES/FIRST-YEAR SEMINAR

Examines key developments of the 19th century—industrialization, slavery and Civil War, westward expansion, immigration, Progressive reform—as considered in the personal writings of individual women. Traces larger trends and identifies common experiences of women, while also paying attention to the differences and divisions among them. Designed to encourage a questioning of historical sources themselves. How reliable are first-person narratives? Are diaries and letters ever truly private? How can historians read personal documents and rebuild the past through them? Ms. Richter/Offered periodically

062 WAR AND PEACE IN THE MIDDLE EAST/FIRST-YEAR SEMINAR

Explores the cycle of war and peace in the Middle East during the past 100 years in order to answer three questions: What role has ethnic identity played in prolonging violent conflict in the region, not merely between Arabs and Israelis, but also between Shiite and Sunni Muslims? Have the United States, the Soviet Union, and the other great powers served more as peacemakers or troublemakers in the Middle East? To what degree is the contemporary confrontation between America and radical Islam “a clash of civilizations?” Case studies will range from the birth of Israel to the September 11 attacks and their aftermath. Students will

write a series of brief essays based on historical and literary documents ranging from the Balfour Declaration to Osama bin Laden's fatwa against the United States. Fulfills historical perspective. First preference for enrollment will be given to students in the International Studies Stream. Others will be admitted on a space available basis. Mr. Little/Offered periodically

070 OUR EUROPEAN ROOTS: WESTERN CIVILIZATION FROM ANCIENT HEBREWS THROUGH THE RENAISSANCE AND REFORMATION/LECTURE, DISCUSSION

Outlines developments of Western society and our collective identity. Presents historical angles—cultural, religious, political, military, economic, and social—and integrates these analytical approaches into a coherent, popular narrative. The medieval period is emphasized as the root of modern history. HIST 070 and 071 are parts of a whole, but either course may be taken without the other. Fulfills the historical perspective requirement. Ms. Froide/Offered every other year

071 OUR EUROPEAN ROOTS: WESTERN CIVILIZATION FROM THE 17TH CENTURY TO THE PRESENT/LECTURE, DISCUSSION

Same goal as HIST 070. Covers the military revolution of the 16th century, the bureaucratic and scientific revolutions of the 17th century, the 18th-century Enlightenment, and the political, industrial, intellectual, and social revolutions of the 19th and 20th centuries. HIST 070 and 071 are parts of a whole, but either course may be taken without the other. Fulfills the historical perspective requirement. Staff/Offered every other year

074 THE WORLD AND THE WEST/LECTURE, DISCUSSION

Surveys European interaction with the non-white world from the 15th to the 20th century, including European engagement overseas. Focuses on social and cultural transformation of Europe as a result of Expansionism, Colonialism, and Imperialism. Fulfills the historical perspective requirement. Staff/Offered periodically

077 INTRODUCTION TO LATIN-AMERICAN CIVILIZATION/LECTURE, DISCUSSION

Seeks to introduce the diversity and complexity of the many Latin-American nations and peoples, as well as to emphasize the historic, current and future importance of Latin America to the world. Special emphasis on ancient American civilizations, 16th-century European contact and conquests, society then and now (human rights, poverty, slavery, the many faces of race and identity), political instability, power of the military and foreign intervention. Ms. Roazen/Offered every year

080 INTRODUCTION TO MODERN ASIA/LECTURE

Surveys modern historical trends in India, China, Japan, Southeast Asia, and Korea. Through political biographies, literary selections, and general histories, the course compares native traditions, colonial experiences, and postcolonial developments in Asia since roughly 1800. Fulfills the historical perspective requirement. Mr. Ropp/Offered every other year

084 JAPANESE CIVILIZATION/LECTURE, DISCUSSION

Selected themes in contemporary and historical Japan. Fulfills the historical perspective requirement. Staff/Offered periodically

110 EARLY MODERN EUROPE/LECTURE, DISCUSSION

An introduction to the history of Europe between 1400 and 1800. Examines the primary social, economic, religious, political, and cultural events of the period; as well as gain an understanding of the important changes that occurred in the early modern era. Explores the colonization of the Americas, the advent of the new economic system called capitalism, and the role of Europeans in the Atlantic slave trade. Ms. Froide/Offered every year

111 INTRODUCTION TO WOMEN'S STUDIES/LECTURE, DISCUSSION

See Women's Studies 110. Ms. Richter/Offered periodically

113 URBAN LANDSCAPES: THE CITY IN AMERICAN HISTORY FROM COLONIAL TO MODERN TIMES/LECTURE, DISCUSSION

Examines the urban experience in what is now the United States from its multiethnic colonial origins to its multiracial present. Emphasizes the relationship between the spatial and the sociopolitical organization of the city, from the Salem witch hunts through the Los Angeles riots. Focuses on several case studies, including Worcester and New York City. Fulfills the historical perspective requirement. Ms. Richter/Offered every year

117 INTRODUCTION TO HEBREW BIBLE I: NARRATIVE AND LAW

See Jewish Studies 117. Mr. Fox/Offered every year

120 WRITING HISTORY/PROSEMINAR

Introduces students to the discipline of history, with emphasis on the different types of historical writing and on the issues involved in the research and writing of historical studies. Fulfills the historical perspective requirement. Mr. Ropp, Ms. Richter/Offered every semester

130 GENOCIDE

See Sociology 130.

135 HISTORY OF ARMENIA

Introduces the history of Armenia from antiquity to the modern times. Examines the formation of the Armenian state as an independent entity, the role of the major powers (eg, Byzantium, Persia), and the social and political institutions under the Armenian monarchies (eg, Bagratuni, Cilicia). Covers the history of modern Armenia from the late 18th century to the 20th century, including the development of modern Armenian culture and political life in Ottoman and Russian Armenia. The course examines the emergence of the Armenian national movements, the events leading to the genocide, and the creation of the Republic of Armenia, Soviet Armenia, the re-emergence of the Republic of Armenia after the collapse of the Soviet Union, and the current issues confronting the Republic. Mr. Payaslian/Offered periodically

140 ENGLAND TO 1688/LECTURE, DISCUSSION

Women in European History. An introductory survey of the history of England in the medieval and early modern periods, from the 11th through the 17th centuries. Students will examine how the lives of men and women in England changed over these centuries due to transformations in social life and structure, in the economy, in demography, in the political climate, and in the intellectual and religious spheres. Ms. Froide/Offered periodically

145 U.S. HISTORY THROUGH THE NOVEL/LECTURE, DISCUSSION

Introduces American history with a distinctive and unconventional approach, resting on the assumption that we can gain access to the past by reading fiction. Students learn how to approach imaginative literature from an historical perspective and to appreciate the historical insight of writers who were keen observers of aspects of the making of modern America. Fulfills the historical perspective requirement. Mr. McCoy/Offered every year

150 JERUSALEM IN HISTORY AND IMAGINATION/LECTURE, DISCUSSION

See Jewish Studies 150. Mr. Burke, Mr. Fox

155 HISTORY OF RUSSIA

Surveys Russian history from the medieval times of the 9th century to the modern period, with emphasis on the 19th and 20th centuries. Examines the main social, political, and intellectual trends in the rise of modern Russia and studies Russia's many minority groups and subject nationalities. Attention is paid to Russia's changing role in world affairs, its rise to great power status, and its experiences of revolution and war. Mr. Gellately/Offered periodically

157 THE AGE OF NERO/LECTURE, DISCUSSION

See Ancient Civilizations 157. Mr. Burke/Offered every other year

161 HISTORY OF MODERN INDIA/LECTURE, DISCUSSION

Through the study of cultural and historical documents as well as modern historical scholarship, studies the history of India emphasizing the nature of British rule in India from the

17th century to the mid-20th century. Formerly titled British India. Fulfills historical perspective requirement. Staff/Offered periodically

162 THE HISTORY OF THE MODERN MIDDLE EAST/LECTURE, DISCUSSION

Focuses on Middle Eastern history and society from World War I to the present. Major themes include the collapse of the Ottoman Empire and the emergence of nation-states; colonial rule in the Arab world and the struggle for independence, the Arab-Israeli conflict; the rise of Islamic fundamentalism, and the impact of oil. Fulfills the historical perspective requirement. Mr. Little, Staff/Offered periodically

173 THE HISTORY OF RACIAL THOUGHT IN MODERN EUROPE/LECTURE, DISCUSSION

Surveys European racial thought from the 15th to the 20th century. Places racial thinking over the last five centuries in the context of social, economic, cultural and political trends. Attention is also paid to the history of minority groups in Europe and European encounters with non-European peoples in the wider world. Some effort is made to compare European racial thought to what happened in other countries, such as the United States and Japan. Fulfills the historical perspective requirement. Mr. Gellately/Offered every year

174 THE JEWISH EXPERIENCE/LECTURE, DISCUSSION

Surveys history of the Jewish community and the development of Judaism from the era of Alexander the Great (c. 325 B.C.E.) to the present. Examines the major political, religious, social, and economic trends of each period as they affected the Jewish community and the development of Judaism. Emphasizes elements of change and continuity as well as interaction of the Jewish community with the larger culture and community. Fulfills historical perspective requirement. Staff/Offered every year

175 THE HISTORY OF THE HOLOCAUST TO 1933/LECTURE, DISCUSSION

This course is the first of a two-part course on the History of the Holocaust. It will examine the roots of this cataclysm of western civilization up to the eve of World War II. Formerly

numbered HIST 278 The History of the Holocaust to 1933. Staff/Offered every year

176 THE HOLOCAUST IN HISTORICAL PERSPECTIVE/LECTURE, DISCUSSION

Content varies with the interest of the instructor. In the past, topics have included the central issues of Holocaust history: the Jewish communities of Europe, especially Eastern Europe, before World War II; Nazi ideology and the background of Weimar Germany; Nazi ascent to power; anti-Jewish policies; Jewish reactions and responses; the Nazi onslaught on Polish Jewry after the conquest of Poland in 1939; the Jewish Councils; Jewish reactions in Eastern Europe; development of Nazi policies until and including the "final Solution"; Jewish reactions in Central and Western Europe; Jewish resistance—armed and unarmed; concentration camps and death marches; issues of interpretation and controversies. Fulfills the historical perspective requirement. Staff/Offered periodically

178 SOUTH AFRICA: HISTORY AND CONTEMPORARY POLITICS/LECTURE, DISCUSSION

See Government 178. Ms. Grier/Offered every year

179 THE HISTORY OF TRADITIONAL AFRICA/LECTURE, DISCUSSION

Introduces the history of Africa south of the Sahara. Begins with early civilizations of Kush, Axum, Ghana, Mali, Songhai, Benin, the Zanj, Congo, and Zimbabwe and continues through the arrival of Europeans. The approach is largely historical and anthropological. Fulfills the historical perspective requirement. Staff/Offered periodically

180 HISTORY OF MODERN AFRICA/LECTURE, DISCUSSION

Introduces students to major themes of modern African history. Begins with orientation to pre-colonial Africa and considers the imperial years, the struggle for independence, the 1960s as a decade of independence, and the 1970s and 1980s as a search for identity and development. Focus is on the years since 1945. Fulfills the historical perspective requirement. Staff/Offered periodically

181 CHINESE CIVILIZATION/LECTURE, DISCUSSION

Focuses on Chinese life, institutions, and culture from the earliest times through the mid-19th century. Creative literature, philosophical writings, and selected primary documents supplement information presented in interpretive texts and lectures. Fulfills the historical perspective requirement. Mr. Ropp/Offered every other year

182 MODERN CHINA/LECTURE, DISCUSSION

Introduces events, personalities, and concepts of importance for understanding China's history from the early-19th century to the present. Readings that present the Chinese view of events supplement interpretative studies by Western scholars. Fulfills the historical perspective requirement. Mr. Ropp/Offered every other year

184 MODERN JAPAN/LECTURE, DISCUSSION

Examines Japanese political, social, economic, diplomatic, and cultural history from approximately 1800 to the present. Focuses on issues arising in the transition of a non-Western culture from a feudal society to a modern political-economic unit. Fulfills the historical perspective requirement. Staff/Offered every other year

201 ERA OF THE AMERICAN REVOLUTION/LECTURE, DISCUSSION

Studies the origins, character, and consequences of the American Revolution, from the erosion of imperial authority in the 1760s and 1770s to the Constitutional Convention of 1787. Emphasizes relation of ideology and political ideas to social development. Mr. McCoy/Offered every other year

202 THE EARLY AMERICAN REPUBLIC/LECTURE, DISCUSSION

Studies formation and testing of the early United States from the adoption of the Constitution through the Jacksonian era. Emphasizes ideology, public policy, and the problem of national integration during an age of extraordinary territorial and economic expansion. Mr. McCoy/Offered periodically

203 U.S. URBAN HISTORY: COLONIAL - MODERN PERIOD/SEMINAR

Examines the urban experience in what is now the United States from its multiethnic colonial origins to its multiracial present. Emphasizes the relationship between the organization of space in the city and the social and political organization of the city from witch hunts to riots. Staff/Offered periodically

204 INTERPRETATIONS OF AMERICAN HISTORY/ PROSEMINAR

A colloquium that takes a broadly conceptual and historiographical approach to the literature in early American history, from the origins of colonization to approximately 1820. Permission of the instructor is required. Mr. McCoy/Offered periodically

209 AMERICA IN OUR TIME: THE UNITED STATES SINCE 1968/LECTURE, DISCUSSION

Examines the recent American past from Watergate through Generation X. Utilizes film and video to reacquaint students with figures ranging from Elvis Presley and Richard Nixon to Ronald Reagan and Anita Hill. Major themes include the death and rebirth of the affluent society, the persistence of ethnic and racial conflict, and the waning of the Cold War. Formerly titled: The United States Since 1945. Staff/Offered periodically

210 RESEARCH SEMINAR IN EARLY AMERICAN HISTORY/SEMINAR

A combination of individual and collective endeavors. Focuses on historical research and writing. Students research a topic in early American history through the Civil War. Permission of the instructor is required. Mr. McCoy/Offered periodically

211 AMERICAN CONSUMER CULTURE/SEMINAR

Investigates the nature and meaning of the consumer experience in American history. Draws upon studies of advertising, domestic life, and urban institutions and examines the varied ways in which historians have defined and interpreted the importance of consumption within American life. Introduces students to the process of primary historical research. Ms. Richter/Offered periodically

213 GENDER AND THE CITY IN THE UNITED STATES/DISCUSSION, RESEARCH

Focusing on the 19th and 20th centuries, examines where urban life for men and women diverged and where it met. Readings on men, women, and urban space, reform movements, utopian ideals, and other topics are followed by student research projects using local resources. Ms. Richter/Offered periodically

214 THE AMERICAN CIVIL WAR/LECTURE, DISCUSSION

Examines events and trends precipitating the single greatest crisis in American history, the Civil War of 1861-65. Includes consideration of the behavior and experience of Americans during the war itself. Mr. McCoy/Offered every other year

215 THE AGE OF LINCOLN/PROSEMINAR

A reading, discussion, and research course focusing on an extraordinary individual and his times. Emphasizes biography and the relationship between the private and the public in Abraham Lincoln's life, which becomes the vehicle for understanding better the distinctive problems and concerns of American society, culture, and politics from approximately 1815 through the end of the Civil War. Mr. McCoy/Offered every other year

216 AMERICAN HISTORY IN COMPARATIVE PERSPECTIVE/PROSEMINAR

Content and topics vary with instructor's interests. A reading and discussion course exploring the advantages of taking a comparative approach to selected key themes and issues in the history of the United States. Permission of the instructor is required. Staff/Offered periodically

217 RECONSTRUCTION: AMERICA AFTER THE CIVIL WAR, 1865-1877/SEMINAR

Examines American history in the post-Civil War period, from 1865 to 1877, a period of national redefinition and political and social experimentation. Explores how Americans struggled with the consequences of the Civil War and emancipation. Grounds students in the historical literature of the Reconstruction

era while emphasizing original student research in local sources. Ms. Greenwood/Offered periodically

219 HISTORY OF AMERICAN WOMEN/LECTURE, DISCUSSION

Examines female experience in the United States, focusing on issues of power, race, ethnicity, and class, and on concepts of work, family, and gender, with their ramifications for the world of both sexes. Fulfills the historical perspective requirement. Ms. Richter/Offered every year

221 FROM SLAVERY TO FREEDOM/LECTURE, DISCUSSION

Examines the historical experience of blacks in America from the colonial period to the present. Explores the evolution of slavery, changing conceptions of race, blacks in the Civil War and Reconstruction, the Great Migration, and the Civil Rights Movement. Fulfills the historical perspective requirement. Formerly titled: African-American History. Ms. Greenwood/Offered periodically

222 HISTORY OF THE SOUTH/LECTURE, DISCUSSION

Explores the history of the South from the colonial period to the present, focusing on how the South developed as a distinctive region of the United States. Examines development of slavery; impact of slavery on the economy, politics, and culture of the South; race, class, and gender in the Old and New South; myth and reality of the New South; the South in the 20th century. Ms. Greenwood/Offered periodically

223 THE CIVIL RIGHTS MOVEMENT/LECTURE, DISCUSSION

Examines roots and evolution of the Civil Rights Movement from the 1930s to the present. Includes civil rights as a grassroots movement; the New Deal, World War II, and civil rights; emergence of Martin Luther King; women and the Civil Rights Movement; black power; the disintegration of the movement; the meaning of civil rights today. Ms. Greenwood/ Offered every other year

224 HISTORY OF AFRICAN-AMERICAN WOMEN/SEMINAR

See Government 225. Ms. Griet/Offered every year

225 MODERN AFRICA/SEMINAR

Examines the notable historical events and processes in Africa in the 20th century. Attention will be devoted to the regions of Western, Central and the Horn of Africa. Through comparative studies of the recent history of Sierra Leone, Liberia, Rwanda and Ethiopia, the seminar will explore the scope and pattern of economic and social change in Sub-Saharan Africa, the impact of global movement of ideas and institutions on that process and African responses. Mr. Kissi/Offered periodically

226 COMPARATIVE COLONIALISM/SEMINAR

Seeks to examine the ways in which Spanish, Dutch, and English societies evolved in the New World from 1492 to 1824. Topics include the motives and backgrounds of settlers, encounters with natives, syncretism, the search for crops and precious metals, contacts with the mother countries, the contributions of Africans and, finally, the revolutions that made an end to the mainland empires. Mr. Klooster/ Offered periodically.

229 WOMEN IN EUROPEAN HISTORY/LECTURE, DISCUSSION

Examine the history of European women up to 1800. Topics will include premodern ideas about women and gender; women's role in and relationship to religion; women's work; women's position within the household; comparisons between rural and urban women, and between elite, middle-class, and peasant women; the effect of marital status on single, married, and widowed women; the effects of major historical changes such as the Reformation and the rise of capitalism on women; and the emergence of movements for women's rights. Ms. Froide/Offered periodically

230 ARMENIAN GENOCIDE/SEMINAR

Examines the various dimensions of the Armenian Genocide, through scholarly analyses, survivor narratives, journalistic accounts, and other resources. Through the course, students develop a detailed understanding of the actual events of the genocide, its social and political causes, and its immediate and long-term impact on individual Armenians and the Armenian nation generally. Students will also treat in-depth the initial external response to the genocide, its political and legal aftermath, and the significant effort still made by the Turkish successor state to deny that the genocide occurred. Mr. Payaslian/Offered periodically

231 AMERICA IN THE GILDED AGE, 1877–1900/PROSEMINAR

Focuses on a volatile period of American history, the Gilded Age, 1877 to the turn of the century. Examines Gilded Age society, culture, economy, and politics. Includes immigration and urbanization, industry and labor relations, family life, and agrarian movements. Ms. Greenwood/Offered every other year

233 CONFUCIANISM, DAOISM, BUDDHISM: INTELLECTUAL HISTORY OF CHINA/LECTURE, DISCUSSION

Explores the three major intellectual traditions of China, with special emphasis on the ethical values of each tradition and their historical and contemporary relevance. Fulfills the values perspective. Not open to students who have taken the first-year seminar, History 033. Mr. Ropp/Offered periodically

235 THE ATLANTIC WORLD

A course that deliberately moves away from the traditional focus on nation-states and continents, concentrating instead on the Atlantic world that was created in the wake of the Portuguese explorations and Columbus' voyages. The emphasis will be on the flow of people, commodities, germs, and ideas between the Old World (Europe and Africa) and the New. Fulfills the historical perspective. Mr. Klooster/Offered every year.

238 U.S. FOREIGN POLICY/LECTURE, DISCUSSION

Analyzes America's rise to globalism from World War II through the Cold War and beyond, focusing on key policymakers like FDR, JFK, Henry Kissinger, and Bill Clinton. Topics include the atomic bomb, the CIA, the Vietnam War, and the Arab-Israeli conflict. Special emphasis on the dilemmas of the 1990s—the Gulf War, Bosnia, and economic rivalry with Japan. Formerly titled U.S. Foreign Relations since 1914. Staff/Offered every other year

239 U.S. CONSTITUTIONAL LAW: CIVIL LIBERTIES/LECTURE, DISCUSSION

See Government 272. Replaces 254/HIST 239 American Constitutional Law. Mr. Miller/Offered every other year

240 U.S. CONSTITUTIONAL LAW: GOVERNMENTAL POWERS/LECTURE, DISCUSSION

See Government 273. Replaces 254/HIST 239. Mr. Miller/Offered every other year

241 HISTORY OF INTERNATIONAL HUMAN RIGHTS

This course will introduce the student to one of the most fundamental issues in the evolution of societies: human rights. Examines the various conceptions of personal rights since the ancient times. Issues related to the promotion and protection of human rights as premised on the fundamental principles of basic human dignity and individual rights are explored. Examines also the emergence of domestic human rights and the relationship between just society and political legitimacy. Mr. Payaslian/Offered periodically

243 AMERICAN ANTIQUARIAN SOCIETY SEMINAR IN AMERICAN STUDIES/SEMINAR

Given at the American Antiquarian Society (about two miles from Clark); students conduct original research in the society's unique holdings. Students apply in the spring through Professor Richter. American Antiquarian Society Staff/Offered every year

245 AMERICANS, ISRAELIS AND ARABS/LECTURE, DISCUSSION

See Government 245. Formerly 244. Mr. Lane/Offered every year

246 THE UNITED STATES AND THE PERSIAN GULF/ LECTURE, DISCUSSION

See Government 246. Formerly 244. Mr. Lane/ Offered every year

248 HISTORY OF THE MIDDLE EAST/SEMINAR

Introduces students to one of the most critical regions of the world – the Middle East. Examines the different legacies from the past. Looks at the role of outside powers and their impact of modernization and economic development, and the problems associated with nation-building and state-building. Examines the nature and causes of the various conflicts in the region, especially the Israeli-Palestinian conflict, and the role of international organizations and the prospects for conflict resolution. The course is concluded by reviewing some of the major events in recent years (for ex. The Gulf War, 9/11) as well as efforts toward greater regional cooperation. Mr. Payaslian/ Offered periodically

249 WOMEN AND WORK IN PRE-INDUSTRIAL EUROPE/SEMINAR

Examines women's work within the context of Western Europe from roughly 1300 to 1800. Issues discussed: Has women's work changed over time or has it remained largely the same from the Middle Ages until the present day? Were capitalism and industrialization detrimental or positive forces for working women? Should work done by women in the household, such as child care and housework, count as legitimate work? Can women's work be studied using the same categories and terminology with which we study men's work? When in this period did women develop a work identity? Ms. Froide/ Offered every other year

252 THE BRITISH EMPIRE/LECTURE, DISCUSSION

Reviews the evolution of the British Empire from the 18th century to the 1960s and 1970s. Four major topics are examined: the rise of the British Empire and key elements contributing to imperial expansion: the American Revolution and its impact on British colonial policy; British imperial expansion in Africa and Asia and problems of colonial administra-

tion and stability; and evolution from empire to commonwealth. Mr. Payaslian/ Offered periodically

253 20TH-CENTURY EUROPE/LECTURE, DISCUSSION

Deals with Europe in the 20th century and focuses on some of the key social, political, and cultural developments in what turned out to be the most disturbing chapter in Europe's long history. Emphasis is placed on the origins and impact of the Great Wars; the Russian Revolution and spread of Communism; the Fascist Era in Italy, Germany, and elsewhere. Themes to be explored include the evolution of modernity and its influences on nationalism, imperialism, and racism. An effort is made to explain how Europe, which was thought to be so advanced and full of promise in 1900, declined thereafter into an era of conflicting ideologies, war and civil wars, revolution, ethnic cleansing and genocide. Formerly titled 20th-Century Europe. Mr. Gellately/ Offered every year

256 POLITICS OF THE SOVIET UNION

See Government 256. Formerly titled Politics of the Soviet Union and Its Successor States. Ms. Sperling/ Offered every year

257 CHRISTIANS AND JEWS IN THE ANCIENT WORLD/LECTURE, DISCUSSION

See Classics 262. Mr. Burke/ Offered every other year

258 GENDER, CLASS AND RACE IN MODERN BRITAIN/LECTURE, DISCUSSION

Introduces students to the period between 1700 and 2000 when Britain became one of the most powerful nations in the world. We will look at both Britain's domestic history, as well as its Empire and impact on the modern world; an intellectual revolution in Britain and the importance of Scotland to the Enlightenment; the growth of a world trade empire; the loss of the North American colonies; the impact of the French Revolution on Britain; the ascendancy of the gentry; the question of why Britain had no 18th-century revolution. Ms. Froide/ Offered every year

259 MODERN GERMANY/LECTURE, DISCUSSION

Examines key cultural, social and political developments in Germany from the early 19th century, with emphasis on Bismarck's Germany, the era of the first World War, the Revolution of 1918-19, and the Weimar Republic. This is the first of a two-part course on the history of modern Germany. It also provides an introduction to the Nazi period, though this turbulent and tragic time is studied in-depth in the second semester course. Formerly titled Modern Germany. Mr. Gellately/Offered every other year

260 RESCUE AND RESISTANCE DURING THE HOLOCAUST/SEMINAR

Investigates rescue and resistance activities during the second World War. Our aim will be to come to a critical understanding of what we mean by "rescue" and "resistance," and to analyze how these undertakings were organized, who participated in them, and why people felt compelled to do so. Looks at the role and function (if any) of age, gender, degree of religious observance, political affiliation, and social class in our attempts to understand not only what activities were undertaken, but the motivation for such actions. Ms. Dwork/Offered every third year

261 JEWISH CHILDREN IN NAZI-OCCUPIED EUROPE/SEMINAR

Jewish children had many different types of living experiences during the war years. The purpose of this course is to study the lives of European Jewish children during and after the occupation years. Studying the youngest and most vulnerable members of society, students will learn about the children themselves and about the adults who framed and shaped their lives. Ms. Dwork/Offered every third year

262/362 SCIENCE, MEDICINE AND RACE IN MODERN EUROPE/SEMINAR

Emphasizes how scientists, medical professionals, and others in the biomedical community in Europe set out to construct what they deemed to be the "perfect" race and harmonious society. The course examines new scientific and medical disciplines, life eugenics,

racial hygiene, and social medicine intended to improve the race and transform societies. Mr. Gellately/Offered periodically

263 NAZI TERROR IN GERMANY AND EUROPE/LECTURE, DISCUSSION

Investigates the emergence of the Gestapo and concentration camp systems in Germany between 1933 and 1939 and the revolutionary transformations brought about by WWII. Traces the interaction between the institutions of the terror, the persecutions of those defined as "outsiders" and "ordinary" people. Includes discussion of collaboration, persecution and resistance, and concludes with a brief examination of Denazification, the Nuremberg trials, and neo-Nazism. Mr. Gellately/Offered periodically

264 INTIMACY AND DICTATORSHIP/SEMINAR

Examines history by way of personal and intimate documents—such as diaries and letters—written during modern European dictatorships. A wide range of materials penned by witnesses, victims or victimizers is studied. A critical evaluation of the times as seen and recorded by contemporaries, will help to illuminate history in the making. Attention is paid to the interaction of the personal and political in the great upheavals of the 20th century, including Russia under Stalin and Italy under Mussolini, but the emphasis is on the Third Reich and the Holocaust. Mr. Gellately/Offered every other year

265 LIFE AND DEATH IN THE CITY: OCCUPIED EUROPE, 1939-1945/SEMINAR

Examines the daily lives of ordinary people — gentile and Jewish — in the cities of occupied Europe during WWII. Ms. Dwork/ Ms. Pritchard/Offered periodically

267 RELIGIOUS EXPERIENCE IN THE ANCIENT WORLD/LECTURE, DISCUSSION

See Ancient Civilizations 267. Mr. Burke/Offered every other year

268 THE HOLOCAUST: ISSUES AND CONTROVERSIES/SEMINAR

See History 368. Permission of the instructor. Mr. Gellately/Offered periodically

270 HOME FRONTS IN WORLD WAR II/SEMINAR

Studies how the war fundamentally and dramatically affected societies behind the lines. The course focuses on the three main European combatants — Germany, the Soviet Union, and Great Britain, but some effort is made to compare and contrast what happened in the United States and Japan. The course compares the home fronts with regard to themes such as mobilizing the population, integrating women, and dealing with youth. It studies the styles and approaches of wartime leaders to the many challenges they faced at home, and explores the uses made of propaganda to uphold morale and to represent the enemy. An effort is made to look at what happened to social outsiders, such as those who were deemed “race enemies” and aliens. There is attention to “out” groups, like dissenters, pacifists, deserters and delinquents. Mr. Gellately/ Offered every other year

273 LIFE UNDER OCCUPATION/SEMINAR

Examines life under German occupation critically. The life of Jews under German occupation clearly was different than the life of their gentile neighbors, but what is equally true but not so obvious is the difference in occupation regimes across Europe. To highlight that fact and the embedded issues, the course will focus on Poland, France, Bulgaria, the Netherlands, and Denmark. Particular attention will be paid to the history of France, because of the division between the north and south, and the role of Petain and Vichy. Ms. Dwork/ Offered every third year

274 THE FATE OF THE SHTETL DURING THE HOLOCAUST/SEMINAR

Deals with Brest-Litovsk as an example of Jewish settlements in Eastern Europe and their fate during the Holocaust. Additional communities will be brought in by way of comparison, mainly Hrubieszow and Kosow Huculski. Comparison with the fate of the larger, better-known Jewish communities in Poland and Lithuania will be drawn. Staff/ Offered periodically

275 20TH-CENTURY LATIN AMERICA/PROSEMINAR

In-depth examination of various issues, events and people of 20th-century Latin America which have, for better or for worse, most shaped Latin America today and where the region is headed in the 21st century. Topics include: human rights, NAFTA, debt and trade plans, race and identity, revolutions, the drug war, the Amazon controversy, and U.S./Latin-American relations. Ms. Roazen/ Offered periodically

276 MODERN JEWISH HISTORY AND THOUGHT/LECTURE, DISCUSSION

Discusses the emergence of the Jew into modern society after the French Revolution. The political and ideological struggle over emancipation and adjustment are traced through the growth of Jewish denominationalism in Western Europe. The competing ideologies of Jewish nationalism (including those of both Zionist and non-Zionist character) are discussed in the context of Eastern European Jewry and its unique contribution to modern Jewish identity. Course concludes with an examination of the Weimar Republic in Germany (1918-1933) and the independent Polish State (1918-1939). Staff/ Offered every other year

277 THE HISTORY OF ZIONISM IN ISRAEL/SEMINAR

See Jewish Studies 277. Staff/ Offered periodically

279 LATE IMPERIAL CHINA/SEMINAR

Explores the history of Chinese civilization from the Yuan Dynasty through the late 19th century. Examines the relationship between the Chinese state and society, focusing upon developments of fundamental systems of thought and society. Mr. Massey and Mr. Ropp/ Offered periodically

280 SOVIET FOREIGN POLICY

See Government 280. Formerly titled Soviet Foreign Policy and Aftermath. Ms. Sperling

281 THE PEOPLE'S REPUBLIC OF CHINA/LECTURE, DISCUSSION

Surveys life in the People's Republic of China from 1949 to the present. Includes a history of

the People's Republic, and attention to such themes as politics, society, family life, economics, foreign relations, literature, and the arts. Mr. Ropp/Offered periodically

282 CHINESE WOMEN IN LITERATURE AND SOCIETY/LECTURE, DISCUSSION

Examines the changing role of women in Chinese society from the 17th century to the present, primarily through the reading and discussion of Chinese literature in English translation. Mr. Ropp/Offered every other year

284 THE HOLOCAUST AND ITS AFTERMATH, 1933-1996/LECTURE, DISCUSSION

Although this course is the second part of a two-semester course on the history of the Holocaust, the first semester (HIST 175) is not a prerequisite for this course. This term the course will return briefly to 1933 to cover the National Socialist years prior to the war. The purpose of the course is to provide students with a critical, analytical understanding of the Holocaust and the context in which it occurred, and encourage them to think about its long-term effects. Ms. Dwork/Offered every year

286 THE VIETNAM WAR/LECTURE, DISCUSSION

Explores the Vietnam War, emphasizing American involvement in Vietnam in the decade 1965 to 1975. Includes a survey of the history and culture of Vietnam, French experience in Vietnam, and American involvement with Vietnam from World War II to the present. Staff/Offered periodically

287 ADVANCED TOPICS IN INTERNATIONAL RELATIONS/SEMINAR

Content varies with the interests of the instructor. In the past, topics have included the CIA and Covert Action, JFK's Foreign Policy, and American Diplomacy in the Middle East since 1900. Students write research papers based on primary sources. The course is intended for advanced students, particularly history and government majors concentrating on international relations. Formerly titled HIST 291 Seminar on Advanced Topics in International Relations Seminar. Staff/Offered every other year

288 SEMINAR IN CHINESE HISTORY/SEMINAR

Topical research seminar in Chinese history for those with a concentration in Asian Studies. Prerequisite: Asian Studies 080 or 181 or 182, or by permission. Mr. Ropp/ Offered periodically

291 NATIONALISM AND REVOLUTION IN SOUTHEAST ASIA: CAMBODIA AND VIETNAM/SEMINAR

Explores the history of ideas, institutions, colonialism and social transformation in Southeast Asia in the 20th century. Identifies the similarities and differences in the historical experiences and conceptions of "nationalism," "tradition," and "modernity" in Vietnam and Cambodia. It will also assess the role that foreign influences, indigenous ideas of nationhood and institutions such as religion and the family played in the approach of the Cambodian and Vietnamese elite to decolonization, social change and international relations. Mr. Kissi/Offered periodically.

299 SEC.1 DIRECTED READINGS/TUTORIAL

Undergraduates, normally juniors and seniors, design a directed readings course consisting of a sequence of structured readings on a topic approved and supervised by an instructor. Prerequisite: permission of instructor. Offered for variable credit. Staff

299 SEC.2 RESEARCH PROJECTS/TUTORIAL

Undergraduates, normally juniors and seniors, construct an independent research course with an instructor of their choosing. Prerequisite: permission of instructor. Offered for variable credit. Staff

Departmental Honors

299 SEC.8 HONORS THESIS RESEARCH

Honors students receive up to two credits for thesis research. Honors students preparing for the comprehensive exam receive credit for their reading under HIST 299. Offered for variable credit. Staff/Offered every year

299 SEC.9 INTERNSHIP

Students who undertake an interdisciplinary internship for more than two credits may receive up to two credits in history and the remainder in another department. Prerequisite:

permission of instructor and of chair. Offered for variable credit. Staff

Graduate Courses

300 READINGS IN AMERICAN COLONIAL HISTORY/TUTORIAL

Independent studies. Offered for variable credit. Mr. McCoy

301 STUDIES IN THE AGE OF THE AMERICAN REVOLUTION/TUTORIAL

Independent studies. Offered for variable credit. Mr. McCoy

303 SEMINAR IN U.S. URBAN HISTORY/SEMINAR

See HIST 203. Staff/Offered periodically

304 INTERPRETATIONS OF AMERICAN HISTORY/PROSEMINAR

See HIST 204. Mr. McCoy/Offered periodically

310 RESEARCH SEMINAR IN EARLY AMERICAN HISTORY/RESEARCH SEMINAR

See HIST 210. Mr. McCoy/Offered periodically

313 GENDER AND THE CITY IN THE U.S./DISCUSSION, RESEARCH

See HIST 213. Ms. Richter/Offered periodically

315 THE AGE OF LINCOLN/PROSEMINAR

See HIST 215. Mr. McCoy/Offered every other year

325 MODERN AFRICA

See HIST 225. Mr. Kissi/Offered periodically

326 COMPARATIVE COLONIALISM/SEMINAR

See HIST 226. Mr. Klooster/Offered periodically

328 WOMENS VOICES IN EARLY MODERN ENGLAND/SEMINAR

See English 328. Ms. Froide/Offered periodically

330 ARMENIAN GENOCIDE/LECTURE, DISCUSSION

See HIST 230. Mr. Payaslian/Offered periodically

333 ADVANCED TOPICS IN U.S. WOMEN'S HISTORY/SEMINAR, DISCUSSION, READINGS

An advanced readings course in women's history, looking at major new works and theoretical issues. Ms. Richter/Offered every other year

334 ADVANCED TOPICS IN U.S. WOMEN'S HISTORY/RESEARCH SEMINAR

An advanced research seminar for topics in U.S. women's history. Ms. Richter/Offered every other year

335 THE ATLANTIC WORLD

See HIST 225. Mr. Klooster/Offered every year

341 HISTORY OF INTERNATIONAL HUMAN RIGHTS

See HIST 241. Mr. Payaslian/Offered periodically

348 HISTORY OF THE MIDDLE EAST

See HIST 248. Mr. Payaslian/Offered periodically

350 STUDIES IN EARLY MODERN EUROPEAN HISTORY/TUTORIAL

Independent studies. Offered for variable credit. Ms. Froide

352 THE BRITISH EMPIRE/LECTURE, DISCUSSION

See HIST 252. Mr. Payaslian/Offered periodically

356 INTRODUCTION TO ADVANCED STUDIES OF THE HOLOCAUST/SEMINAR

Explores the history of the Holocaust both broadly and deeply. Aims to develop a comprehensive understanding of the pan-European scope of the Holocaust, and a fine-grained knowledge of local conditions and contexts. Using primary and secondary texts, students will explore the role, actions, and lives of all involved groups: perpetrators, victims, bystanders, witnesses, resisters, and rescuers. This seminar is geared to graduate students and open to specially qualified undergraduates. Mr. Gellately/Offered periodically

357 JEWISH CHILDREN IN NAZI OCCUPIED EUROPE/SEMINAR

See HIST 261. Ms. Dwork/Offered periodically

364 INTIMACY AND DICTATORSHIP/SEMINAR

See HIST 264. Mr. Gellately/Offered every other year

365 LIFE AND DEATH IN THE CITY: OCCUPIED EUROPE, 1939-1945/SEMINAR

See HIST 265. Ms. Dwork/Ms. Pritchard/Offered periodically

368 THE HOLOCAUST: ISSUES AND CONTROVERSIES/SEMINAR

Deals with the controversial issues arising out of the representation of the Holocaust in movies (including "Schindler's List") and fictionalized accounts (novels, short stories, plays). As well, the course engages the discussions in progress about public memory (in museums and memoirs), and the implications of postmodernism for the study of the Holocaust. The course explores other hot issues, such as the on-going debate about Daniel Goldhagen's bestseller "Hitler's Willing Executioners." Permission of the instructor. Mr. Gellately/Offered periodically

370 HOME FRONTS IN WORLD WAR II/SEMINAR

See HIST 270. Mr. Gellately/Offered every other year

383 STUDIES IN CHINESE HISTORY/TUTORIAL

Independent Studies. Offered For Variable Credit. Mr. Ropp

384 HOLOCAUST AND ITS AFTERMATH, 1933-1996/LECTURE, DISCUSSION

See HIST 284. Ms. Dwork/ Offered every year

391 NATIONALISM AND REVOLUTION IN SOUTHEAST ASIA: CAMBODIA AND VIETNAM/SEMINAR

See HIST 291. Mr. Kissi/Offered periodically.

392 THESIS RESEARCH

Universitywide course number reserved for this research. Variable Credit. Staff

394 GRADUATE RESEARCH SYMPOSIUM

Universitywide course number reserved for this type of course.

397 MASTER'S THESIS

Universitywide course number reserved for work on the Master's thesis. Variable Credit. Staff

398 DOCTORAL DISSERTATION

Universitywide course number reserved for doctoral dissertation work. Variable Credit. Staff

399 GRADUATE READINGS

Offered for variable credit. Staff

INTERNATIONAL DEVELOPMENT AND SOCIAL CHANGE

Program Faculty

Kiran Asher, Ph.D.: *political economy,*

Feminist and critical development theory, post-colonial studies, cultural politics, Latin America

David Bell, Ed.D.: *community empowerment, social transformation, teacher education and social change, educational policy reform, power relations and empowerment, peace building and conflict transformation, service learning*

Timothy J. Downs, D.Env.: *natural resource management, water supply and sanitation, integrated capacity building, risk analysis, impacts assessment, Latin America*

William F. Fisher, Ph.D.: *anthropology, social movements and development, global civil society, NGOs, involuntary resettlement, ethnicity, political economy, South Asia*

Laura Hammond, Ph.D.: *anthropology, refugees and forced migration, conflict, disaster management, food security, East Africa*

Research Faculty

Cynthia Enloe, Ph.D.: *women and politics, militarization, ethnic and racial politics*

Richard Ford, Ph.D.: *resource management, participation, African history*

Barbara Thomas-Slayter, Ph.D.: *local institutions and organizations, women and public policy, peasant-state relations, gender issues, nongovernmental organizations*

Adjunct and Affiliate Faculty

Yuko Aoyama, Ph.D.: *Geography*

Parminder Bhachu, Ph.D.: *Sociology,*

Joseph deRivera, Ph.D.: *Psychology*

Jody Emel, Ph.D.: *Geography*

Beverly Grier, Ph.D.: *Government*

Donna Hicks, Ph.D.: *Conflict Mediation*

Robert Hsu, Ph.D.: *Economics*

Douglas Johnson, Ph.D.: *Geography*

Dorothy Kaufmann, Ph.D.: *Foreign Languages*

Laurence Lewis, Ph.D.: *Geography*

Paul Posner, Ph.D.: *Government*

Frank Puffer, Ph.D.: *Economics*

Dianne Rocheleau, Ph.D.: *Geography*

Paul Ropp, Ph.D.: *History*

Program

How can people of industrialized and developing countries work together to realize their greatest potential while sustaining the environment? This is the challenge for developers and planners working around the globe—on the plains of Kenya, hillsides of Nepal, and the Pacific lowlands of Colombia. Students in the program for international development and social change learn from faculty engaged in proactive, cross-disciplinary approaches to development in Asia, Africa, Latin America, and the United States. It is one of the few programs in the nation to offer a liberal-arts B.A. degree centered on grassroots development. The program's teaching and research focus on increasing understanding of global interdependence, with the realization that the challenges of globalization and natural-resource management affect us all.

The international development and social change program, part of the Department of International Development, Community and Environment, permits students to design their own interdisciplinary curriculum to study development problems. Majors can focus on a variety of areas, including natural resources management, rural development, gender issues, conflict management, or international political economy.

International development and social change majors will discover a program offering intellectual excitement; a diversity of students, ideas, and perspectives; and innovative approaches to address development issues. This program provides opportunities to develop the skills to participate in building local and global communities in the 21st century.

Undergraduate Major in International Development and Social Change

Undergraduates majoring in international development and social change:

1. Attain an understanding of development processes and their political, economic, historical, theoretical, institutional, and ecological aspects.

2. Master basic skills, including quantitative analysis, research methods, and techniques of economic and social analysis. Competence in a foreign language is strongly encouraged.
3. Develop an investigative/research approach to a problem and apply theoretical knowledge in an internship.
4. Pursue a career track—for example, resource management or gender and development—chosen with a faculty adviser.

Course Requirements for Majors

1. **Core Courses** (five courses): Majors must take the introductory course ID 125 *Tales from the Far Side*; a course in development economics; and three additional core courses in politics, resource management, and sociocultural issues.
2. **Area of specialization** (4 credits): Majors will take at least four courses in an area of specialization selected with an international development and social change faculty adviser. Students may follow one of several established specializations—for example, resource management, community-based development, culture and development, political economy, conflict and development, or gender. A student may design a course sequence, subject to approval by a faculty member, creating a new focus. The area of specialization is an opportunity to link interest in development with a focus in a specialized field.
3. **Skills courses** (3 credits): Majors must take a course in social science research methods and two courses from the following: computer science, statistics, geographic information systems (GIS), cartography, conflict negotiation, or a language.
4. **Capstone seminar** (one course): Seniors take this seminar in the spring term to explore advanced topics in international development.
5. **Internship** (one course): Majors enroll in a one-course internship related to international development. This may be combined with a junior year study abroad program.

B.A. Minor

The international development and social change minor consists of six courses, four of which focus on a development theme identified by the student and approved by his/her adviser. The six include one introductory course (ID 120, ID 125, or ID 131), two 100-level courses, two 200-level courses, and one skills course from among those accepted for the international development and social change major. No more than two courses can be an internship or study abroad. They will be assessed for equivalence to the 100- or 200-level courses.

Honors Program

The honors program gives students the opportunity to conduct independent research on a topic of particular interest. Honors is open to juniors who, by the end of the first semester of the junior year, have a minimum grade-point average of 3.25 overall and 3.5 in the international development and social change major and who can demonstrate the appropriate research background to undertake independent research in this area.

To graduate with honors, a student must successfully complete a two-semester independent honors project conducted under the supervision of a faculty member. A student must declare her/his intention to register for honors work no later than the end of spring semester of the junior year (for work to be completed during the senior year). Successful completion of an honors project will be recognized at commencement.

The Five-year BA/MA Program

The five-year B.A./M.A. program provides more intensive study of international development or community development and planning in combination with a liberal-arts degree. Majors in any undergraduate field may be accepted for the M.A. degree, although preparation for the program is easier for international development and social change majors. International development and social change majors can be admitted into the five-year pro-

gram without any additional requirements. Majors in other disciplines must supplement their courses with a number of preparatory courses in international development. Clark students are eligible for full- or reduced-tuition fellowships during a fifth year of study. Full tuition remission requires a minimum cumulative average of 3.25. Please refer to the Guide to Accelerated Degree Programs.

Students admitted to the B.A./M.A. program take two 200-level international development and social change courses (including the senior capstone) in their senior year, and must complete an internship during the summer between senior and the fifth year. During their fifth year, students take six more courses, including the required core courses: Development Theory, Project Management, and Research Design and Methods. Also required are an additional skills course and another internship/directed reading/directed research project. Application to this program must be made in the first semester of the student's junior year.

Internships and Study-Abroad Options

International development and social change majors have taken the opportunity to expand their knowledge of this field beyond the classroom through internships and study-abroad programs. Some recent examples include:

- The Women's Forum, Stockholm
- The Clark European Center in Luxembourg
- Royal Institute of International Affairs
- Environmental Defense Fund
- The Women's Studies Group, Oaxaca, Mexico
- Worcester Office of Neighborhood Service
- Amnesty International
- Oxfam America
- Main South Community Development Corporation
- Grassroots International
- World Wildlife Fund
- Citizens Energy Corporation
- Study Abroad Program in Namibia
- Santo Domingo Study Abroad Program in the Dominican Republic

International Development and Social Change Courses

016 INTRODUCTION TO ECONOMIC GEOGRAPHY

Using a global systems approach, surveys the precapitalist world, outlines the historical emergence of the world capitalist system, and examines contemporary processes of development and underdevelopment. It surveys features of the world, such as multinational corporations, Fordism, post-Fordism, changing regional systems, environmental problems and the emergence of global culture. A comparative perspective course. Ms. Aoyoma/Offered every year

069 INTRODUCTION TO INTERNATIONAL RELATIONS/LECTURE, DISCUSSION

See Government 069. Staff/Offered every year

077 INTRODUCTION TO LATIN-AMERICAN CIVILIZATION

See History 077. Ms. Roazen/Offered every year

084 JAPANESE CIVILIZATION/LECTURE, DISCUSSION

See History 084. Staff/Offered ever year

085 INTRODUCTION TO MAPPING SCIENCES/LECTURE

See Geography 085. Mr. Steward/Offered every year

101 AN INTRODUCTION TO PEACE STUDIES AND THE PSYCHOLOGY OF PEACE

See Peace Studies 101. Mr. DiRivera/Offered every year

102 FIRST-YEAR SEMINAR: SELECTED TOPICS IN GOVERNMENT AND POLITICS

See Government 102. Staff/Offered periodically

103 AFRICA AND THE WORLD/LECTURE, DISCUSSION

Examines the historical and contemporary relationships of sub-Saharan Africa with Europe, the U.S., the Middle East, the Muslim World, and parts of Asia, and Latin America. Attention is paid to South Africa's relationships with the rest of the world before and after the fall of apartheid. Ms. Grier/Offered every other year

107 MIRACLES OF ASIA/LECTURE, DISCUSSION

What explains the rapid rise of Asian economies, and what prompted the sudden crises? This course provides a foundation in understanding the primary factors in the most successful form of industrialization in the latter 20th century, by focusing on the role of the state, export-led industrialization, and industrial organization of Japan and newly industrializing economies of East and Southeast Asia. The course covers some of the major issues and impacts of rapid industrialization on the standard of living, housing, environment, resource extraction, and ethnic relations; and contrasts areas of rapid industrialization with areas of stagnation and political instability. The course also presents recent developments including the Asian financial crises, as well as the region's distinctive adaptation to new technologies such as the internet, e-commerce, and video games. Ms. Aoyama/Offered periodically

109 INTERNATIONAL ECONOMICS: TRADE AND FINANCE/LECTURE, DISCUSSION

See Economics 108. Mr. Hsu/Offered every year

110 INTRODUCTION TO COMPUTER AND QUANTITATIVE METHODS IN GEOGRAPHY

See Geography 110. Mr. Pontius/Offered every year

117 REVOLUTION AND POLITICAL VIOLENCE/LECTURE, DISCUSSION

See Government 117. Ms. Sperling/Offered every year

120 INTRODUCTION TO CULTURAL ANTHROPOLOGY/LECTURE, DISCUSSION

Provides an introduction to social/cultural anthropology's theories and methodologies through study of its principal medium of analysis, the ethnography. Students will explore several different types of cultural study: hunter-gatherers in Central Africa, gender relations in a Middle Eastern society, and contemporary problems in American inner cities. Anthropological approaches to study of power, identity, social structure, religion, ethnicity, economics and development will also be discussed.

Students learn the methods of anthropological research first-hand through conducting their own field-work projects. Ms. Hammond/Offered every year

125 TALES FROM THE FAR SIDE: DEVELOPMENT AND UNDERDEVELOPMENT/LECTURE, DISCUSSION

Discussions of geopolitics invariably refer to the problems of Third World (under) development. What is so compelling about the idea of development? Why does it ail much of the so-called Third World? What are some of the solutions to development dilemmas—neoliberal market reforms or attention to women, ethnic groups, and other heretofore marginal issues such as the environment? Or is the development enterprise fundamentally flawed as some postcolonial scholars claim? This course introduces students to key histories, concepts, and debates in international development through critical and analytical engagements with fiction, films, and theoretical literatures on the subject. Ms. Asher/Offered every year

126 LIVING IN THE MATERIAL WORLD: THE POLITICAL GEOGRAPHY OF RESOURCE DEVELOPMENT/LECTURE, DISCUSSION

See Geography 126. Ms. Emel/Offered every other year

127 POLITICAL ECONOMY OF DEVELOPMENT/LECTURE

Surveys the leading theories of development: classical, neoclassical, and Keynesian economies, sociological modernization theory, Marxist and neo-Marxist theories, poststructural critiques, postdevelopmentalism, feminism and feminist critiques of development. A comparative perspectives course. Mr. Peet/Offered every year

130 ECONOMIC DEVELOPMENT/LECTURE, DISCUSSION

See Economics 128. Mr. Hsu/Offered every other year

131 LOCAL ACTION, GLOBAL CHANGE/LECTURE, DISCUSSION

Introduces students to activism in a broad sense: as both a tool for political action and a

mechanism for social and/or economic change. International and community development are discussed as forms of activism. Texts focus on activism not only as it is understood and practiced in the United States, but also as it is found in other parts of the world. This includes grassroots movements against the establishment of dams in India and transnational networking of environmental, women's-rights, and human-rights activists. In addition, globalization is considered from an activist perspective—both positive and negative approaches to globalization are examined. Religious-based terrorism is also considered as a form of extreme activism, which is in many ways a reaction to perceived injustice, oppression, and lack of alternatives. Students participate in a project at the community or wider level in order to learn about how activism works practically. Students will experience first-hand the opportunities and challenges to affecting change, protecting human rights, or raising public awareness. Mr. Bell/Offered every year

136 SUB-SAHARAN AFRICA: ISSUES AND PROBLEMS/LECTURE, DISCUSSION

Explores issues confronting sub-Saharan Africa, including the legacy of colonialism, the establishment of nation-states, and the role of parties and the military in the politics of selected countries. Women's roles, class conflict, alternative development strategies, the environment, regional conflicts, and the global economy are examined. Ms. Grier/Offered every other year

138 GENDER AND ENVIRONMENT/LECTURE, DISCUSSION

Explores how gender is reflected in the landscape, in our settlement and land-use patterns, in environmental history, and in our present ecological science and practice from the global to the local level. Combines lectures, readings, discussions, films, and local field trips. Reviews feminist and other alternative explanations of the gendered nature of knowledge, access, use, and control of space and resources in environments—past, present, and possible. Regional

focus on New England, a values perspective course. Ms. Rocheleau/Offered every year

155 ECONOMICS OF NATURAL RESOURCES AND THE ENVIRONMENT/LECTURE, DISCUSSION

See Economics 157. Ms. Geoghan/Offered periodically

161 CULTURAL IDENTITIES AND GLOBAL PROCESSES/LECTURE, DISCUSSION

See Sociology 161. Ms. Bhachu/Offered every year

170 ECOLOGY AND ECONOMY IN THE TROPICS/LECTURE, DISCUSSION

In the ecological conditions of the tropics, how can we reduce hunger and improve economic conditions sustainably? Examines how economic management in tropical ecosystems interacts with cultural history, natural resources, economic theory, and international institutions. Classroom discussions focus on readings, while each student may focus on a topic of individual interest in course projects. Mr. Pontius/Offered periodically

171 INTERNATIONAL PERSPECTIVES ON ENVIRONMENTAL PROBLEMS AND POLICIES/LECTURE, DISCUSSION

See Environmental Science and Policy 171. Mr. Downs/Offered every year

173 LATIN AMERICA SINCE 1825/LECTURE, DISCUSSION

See History 177. Staff/Offered periodically

174 INTERNATIONAL POLITICAL ECOLOGY/LECTURE, DISCUSSION AND FIRST-YEAR SEMINAR (ALTERNATE YEARS)

Integrates ecology and political economy from local to global scale through case studies. Starts from a view of people in environmental "hot spots," following links to the world economy and planetary ecosystems. Explores connections of international, environmental, and economic policy, with everyday realities and possible ecological futures of people from the Amazon rain forest to Worcester. Offered as a first-year seminar (fulfills the comparative and verbal -expression requirements) and lecture course fulfills comparative perspective) in alternate years. Ms. Rocheleau/Offered every year

176 COMPARATIVE ECONOMIC SYSTEMS/LECTURE, DISCUSSION

Examines variety of developed market economies and transitional and developing economies. Topics include Japan's industrial policy and business groups, Germany's social market economy and codetermination, Sweden's welfare state and labor unions, economic reforms in China and Russia, and economic development in Korea. Prerequisite: Economics 010. Mr. Hsu/Offered every year

177 JAPANESE AND CHINESE ECONOMIES/LECTURE, DISCUSSION

See Economics 177. Mr. Hsu/Offered every other year

178 TRANSITIONS TO DEMOCRACY/LECTURE, DISCUSSION

See Government 177. Ms. Sperling/Offered every other year

179 HISTORY OF TRADITIONAL AFRICA/LECTURE, DISCUSSION

See History 179. Staff/Offered periodically

180 HISTORY OF MODERN AFRICA/LECTURE, DISCUSSION

See History 180. Staff/Offered every other year

181 CHINESE CIVILIZATION/LECTURE, DISCUSSION

See History 181. Mr. Ropp/Offered every other year

182 ARE WE MODERN YET?/FIRST YEAR SEMINAR

This seminar asks what it means for places and peoples to be modern. We begin by exploring when and where the imperative toward modernity began. The class examines the economic, political and cultural dimensions of modernity. We question the Eurocentric ideas that claim that modernity was a western enterprise exported to the rest of the world. Next colonialism, nationalism and Third World development are examined as specific projects of modernity. Examples from Latin America and the Caribbean will help focus the discussions for this section. Finally, we engage current debates about the projects of modernity and ask: Have modern forms of knowledge and institutions borne out their promise? Or is

modernity in crisis? Are we moving toward a postmodern era? Throughout the seminar we will highlight how certain notions of race and gender shaped ideas about modernity. Students in the International Studies Stream will be given first preference to enroll in this seminar. Others will be admitted if spaces remain. Satisfies the historical perspective. Co-requisite course: IDND 66 Global Society. Ms. Asher/Offered every other year.

183 MODERN CHINA/LECTURE, DISCUSSION

See History 182. Mr. Ropp/Offered every other year

184 MODERN JAPAN/LECTURE

See History 184. Staff/Offered every other year

185 LANDSCAPES OF THE MIDDLE EAST/LECTURE, SEMINAR

See Geography 184. Mr. Johnson/Offered every other year

189 INTRODUCTION TO REMOTE SENSING AND GEOGRAPHIC IMAGERY/LECTURE, LABORATORY

Introduces a powerful methodology for surveying and analyzing geographical phenomena. Examines aerial photography and satellite imagery and their analysis for interpreting, understanding, and representing the environment. Includes image mapping, photogrammetry, and field surveying. A skills course in the geography major. Mr. Steward/Offered every year

190 INTRODUCTION TO GIS/LECTURE, LABORATORY

Introduces GIS as a data-management, analysis, and mapping tool. Stresses fundamental logic and scope of problem solving using raster and vector systems. Although the course is computer oriented, no programming is involved. A formal-analysis course. Counts as a skills course or core course in mapping sciences/spatial analysis in geography major. Mr. Marciano/Offered every semester

204 WATERSHED ECOLOGY/SEMINAR

See Environmental Science and Policy 204. Staff/Offered every other year

208 COMPARATIVE POLITICS OF WOMEN/LECTURE, DISCUSSION

See Government 208. Offered every other year

211 AFRICAN ENVIRONMENTS AND GEOGRAPHICAL IMPLICATIONS/LECTURE, DISCUSSION

See Geography 211. Mr. Lewis/Offered periodically

213 LATIN-AMERICAN POLITICS/LECTURE, DISCUSSION

See International Development, Community and Environment 313. Ms. Asher/Offered periodically

215 COMPARATIVE ENVIRONMENTAL POLITICS

See Government 216. Mr. Posner/Offered every year

218 SEMINAR IN PHYSICAL ENVIRONMENT AND DEVELOPMENT

See International Development, Community and Environment 318. Mr. Lewis/Offered every other year

219 DEVELOPING SOUTHERN AFRICA/SEMINAR

See Government 219. Ms. Grier/Offered every year

220 CHILD LABOR AND THE STATE: COMPARATIVE PERSPECTIVES/LECTURE, DISCUSSION

See Government 218. Ms. Grier/Offered every year

224 MODERN AFRICA/SEMINAR

See History 225. Mr. Kisse/Offered periodically

225 AFRICAN-AMERICAN POLITICS/LECTURE, DISCUSSION

See Government 224. Ms. Grier/Offered every year

226 THE GLOBAL POLITICS OF DEVELOPMENT/LECTURE, DISCUSSION

See Government 227. Staff/Offered periodically

227 COMPARATIVE POLITICS OF RACE, ETHNICITY, AND GENDER/LECTURE, DISCUSSION

See Government 228. Staff/Offered every other year

228 ECONOMIC DEVELOPMENT/LECTURE, DISCUSSION

See Economics 228. Mr. Hsu/ Offered every other year.

229 MANAGEMENT OF ARID LANDS/LECTURE, SEMINAR

See Geography 228. Mr. Johnson/Offered every other year

230 INTERNATIONAL POLITICAL ECONOMY

See Government 226.

232 POPULATION, ENVIRONMENT, AND DEVELOPMENT/VARIABLE FORMAT

See Sociology 232. Mr. London, Ms. Merrill/ Offered periodically

233 STATE BUILDING: MIDDLE EAST/THE BALKANS/LECTURE, DISCUSSION

See Government 233.

235 POLITICS OF VIETNAM AND THE PHILLIPINES/LECTURE, DISCUSSION

See Government 236. Ms. Enloe/Offered every other year

239 COUNTRY AND CULTURE/LECTURE, DISCUSSION

See Geography 239. Mr. Johnson/Offered every other year

240 HUMAN RIGHTS IN INTERNATIONAL POLITICS/LECTURE, DISCUSSION

Focuses on the cultural context of human rights in order to address three important concerns: How to make human rights relevant in the every day lives of people, especially those outside the industrialized West for whom the international human-rights agenda smacks of cultural imperialism. Bringing human-rights concerns into the debate on the meaning of political, economic and social development. Understanding the complexities of and obstacles to achieving effective international cooperation and action in support of an inclusive human-rights agenda. Follows a lecture discussion format. Case studies will be used to illustrate the theoretical arguments developed in the course, while simulation and role-playing exercises will help us understand the difficulties inherent in coordinating international human-rights efforts. Staff/Offered periodically

241 CITIES AND CULTURE: THE EUROPEAN CITY/LECTURE

See Geography 242. Mr. Bowden/Offered every other year

244 ECONOMICS OF POPULATIONS/LECTURE, DISCUSSION

See Economics 247. Mr. Weinrobe/Offered every other year

245 CULTURE, POLITICS, AND INTERNATIONAL DEVELOPMENT/LECTURE, DISCUSSION

Examines the interplay of culture and politics with international-development practices in an era of increasing globalization. Designed to encourage students to explore recent insights into the workings of discourse and power, and to examine how we can relate, in both theory and practice, these insights to processes of development and resistance to development in the Third World. Considers specific cases and historical processes to understand the effects on local communities of specific development interventions. Mr. Fisher/Offered periodically

247 GLOBAL STRUCTURES AND DYNAMICS/SEMINAR

See Sociology 288. Mr. Ross/Offered periodically

249 THE FRENCH-SPEAKING WORLD/LECTURE, DISCUSSION

An interdisciplinary analysis of questions of cultural identity as they have been elaborated by Francophone writers during the colonial and particularly the postcolonial period, with special emphasis on French-speaking Africa, the Antilles, and the Maghreb. Through literature, social texts and film we explore such issues as tradition and modernity, conflicts between (and within) indigenous and French social codes; the Algerian war and its legacy; women and Islam. Prerequisite: two French courses above 130 or permission. Ms. Kaufmann/Offered periodically

251 NONGOVERNMENT ORGANIZATIONS: CATALYSTS FOR DEVELOPMENT/SEMINAR

Many practitioners and theoreticians, disillusioned with governments in the development process, propose building nongovernment orga-

nizations (NGOs) as development catalysts. This seminar explores the proposal in light of the difficulties and progress NGOs have experienced. Staff/Offered periodically

252 CULTURE, CONSUMPTION AND CLASS IN LOCAL AND GLOBAL CONTEXTS/LECTURE, DISCUSSION

See Sociology 250. Ms. Bhachu/Offered every other year

253 SOCIAL MOVEMENTS, GLOBALIZATION, AND THE STATE/LECTURE, DISCUSSION

The emergence of global networks or transnational alliances among local, regional, and national social movements, international non-governmental organizations, and advocacy groups has been one of the most politically influential aspects of globalization. This course examines what is new about contemporary social movements, the nature of their transnational alliances, and their potential to transform the way states and citizens relate to one another and to the international political arena. The contested nature of civil society, the uneven influence of globalization processes, and changes in the contexts within which local communities and grassroots groups operate are explored through studies of movements concerned with the environment, human rights, development, and women. Mr. Fisher/Offered every other year

255 QUALITATIVE RESEARCH METHODS: SKILLS AND APPLICATIONS/LECTURE, DISCUSSION

Students learn to select, combine, apply and evaluate a broad repertoire of selected qualitative research methods from geography, anthropology, planning, cultural studies, women's studies, international development and the social sciences more generally. Also includes more environmentally oriented methods (also selected) such as mapping, planning, landscape and narrative techniques used in environmental history. These methods, as well as the overview and analytical framework presented in the course, should be useful in community service; public, social and environmental

services; commercial and private sector applications; and academic research setting. A skill or specialization course. Ms. Rocheleau/Offered every year

256 STRUGGLE AGAINST POVERTY/LECTURE, DISCUSSION

Considers worldwide definitions of poverty, recent trends, causes, and effectiveness of different approaches to ameliorate poverty. The course will examine poverty and inequality in a North-South context, taking into account the complex political and cultural issues and perceptions of poverty and wealth around the world. As a final project, each student will prepare a proposal, policy, or project designed to alleviate poverty in a specific setting. Staff/Offered periodically

257 GLOBAL ECONOMIC GEOGRAPHIES/LECTURE, DISCUSSION

See Geography 256. Ms. Aoyama/Offered every other year.

258 DEVELOPMENT AND REGIONAL INTEGRATION/SEMINAR

Examines the interplay of culture and politics with international development practices in an era of increasing globalization. Designed to encourage students to explore recent insights into the workings of discourse and power, and to examine how we can relate, in both theory and practice, these insights to processes of development and resistance to development in the Third World. Considers specific cases and historical processes to understand the effects on local communities of specific development interventions. Staff/Offered periodically

259 RELIGION, IDENTITY, AND VIOLENCE IN A GLOBALIZING WORLD

See International Development, Community and Environment 369. Mr. Fisher/Offered periodically

260 QUANTITATIVE MODELING/LECTURE, DISCUSSION, LABS

Investigates the quantitative and qualitative potential of using mathematical computer models to guide policy in human/environment sys-

tems. Students learn to think with a systems perspective while translating their own conceptual models to mathematical models to computer models. Includes lab sessions in the computer room and lectures/discussion in the classroom. Culminates in written and verbal presentations of student projects. Students will gain technical proficiency in Excel and other software designed for sustainability analysis. Students can apply what they have learned in calculus, statistics, and Ecology and Economy in the Tropics. Prerequisites are Mathematics 121 or Mathematics 125 or graduate standing. Mr. Pontius/Offered every year

261 ROOTS AND ROUTES: IMMIGRANTS, DIASPORAS, AND TRAVEL/LECTURE, DISCUSSION
See Sociology 260. Ms. Bhachu/Offered every year

262 FAMINE AND FOOD SECURITY
Access to food is a vital concern not only for many poor countries, but also for poor sections of wealthier nations. Food insecurity is a major obstacle to development throughout the world, and can lead to environmental degradation, high morbidity, political instability, and conflict. Famine, a condition of severe food insecurity, is often the result of a complicated mix of natural and human-generated factors. This class will consider famine and food (in)security from anthropological, sociological, political and economic perspectives. Case studies will include Africa, Asia, and Western countries. The relation between food security and development efforts as the bridge between famine relief and development work, which promotes sustainable food security, will be considered. Ms. Hammond/Offered periodically

266 PRINCIPLES OF NEGOTIATION AND MEDIATION: AN OVERVIEW OF CONFLICT RESOLUTION APPROACHES

Offers an overview of the principles of conflict resolution that can be applied internationally as well as interpersonally. A general framework for the understanding of conflict is presented

that includes: power-, needs-, interest-, and relationship-based conceptualizations of conflict resolution. Gives students a theoretical as well as practical experience of conflict. It explores some of the psychological obstacles that impede the resolution process and engages in a number of experiential exercises that help the student develop the interpersonal skills needed to transform conflict relationships. Ms. Hicks/Offered every year

271 DIGITAL IMAGE PROCESSING/LECTURE, LABORATORY

See Geography 293. Mr. Eastman/Offered every year

272 TOPOGRAPHICAL MAPPING/SEMINAR

See Geography 296. Mr. Steward/Offered every year

276 SPATIAL DATABASE DEVELOPMENT/LECTURE, LABORATORY

Examines the procedures and technologies used for spatial database development in support of Geographic Information Systems (GIS). Topics covered include geodesy and spatial georeferencing, the Global Positioning System (GPS), control and detail surveys, plane surveying, photogrammetry and topological digitizing. Mr. Marciano, Mr. Eastman/ Offered every year

277 GENDER, ENVIRONMENT, AND DEVELOPMENT/SEMINAR

Considers gendered identities, affinities, control, responsibility, knowledge, labor, and benefits in the definition, use, management, and protection of environments. Readings, lectures, and discussion focus on distinct perspectives and concerns of women and men as actors in natural resource use and management and in local, regional, and global ecological transformations linked to economic restructuring. Ms. Rocheleau/Offered every year

278 THE CREATION OF NATIONALISMS, NATIONALIST CULTURES, AND SYMBOLS

See Sociology 255. Ms. Bhachu/Offered every other year

**279 20TH-CENTURY LATIN AMERICA/
PROSEMINAR**

See History 275. Ms. Roazen/Offered periodically

**280 URBAN ECOLOGY: CITIES AS
ECOSYSTEMS/LECTURE, DISCUSSION**

Explores ecology and physical geography of cities as systems built, inhabited, and managed by people. This class of ecosystem is often neglected except in studies of pollution, yet it is home to many of the world's people and to a surprising number of plant and animal species as well. Readings, lectures, discussion, and written work combine landscape and systems ecology with physical and urban geography to broaden our understanding of city environments, both present and possible. Ms. Rocheleau/Offered periodically

**281 THE PEOPLE'S REPUBLIC OF CHINA/LECTURE,
DISCUSSION**

Surveys life in the People's Republic of China from 1949 to the present. Includes a history of the People's Republic and attention to such themes as politics, society, family life, economics, foreign relations, literature, and the arts. Mr. Ropp/Offered every other year

**282 CHINESE WOMEN IN LITERATURE AND
SOCIETY/LECTURE, DISCUSSION**

See History 282. Mr. Ropp/Offered every other year

283 TROPICAL ECOLOGY/LECTURE, DISCUSSION

Examines structure and function of several major tropical ecosystems (rain forests, savannas, wetlands, coastal zones, deserts) from the perspective of systems ecology. Readings, lectures, and discussions focus on energy flows, material cycles, and species diversity and distribution. Explores patterns and process in tropical ecosystems (especially forests and savannas) under conditions of widespread land-use change. Ms. Rocheleau/Offered every other year

**284 ENVIRONMENT AND DEVELOPMENT IN THE
MIDDLE EAST AND NORTH AFRICA/LECTURE,
DISCUSSION**

See Geography 284. Mr. Johnson/Offered every other year

285 GENDER AND GLOBAL CHANGE/SEMINAR

See International Development, Community and Environment 375. Staff /Offered every other year

**286 ADVANCED TOPICS IN COMPARATIVE
POLITICS/SEMINAR**

See Government 286. Ms. Enloe, Ms. Grier/Offered every year

**287 POLITICS AND POWER IN THIRD WORLD
SOCIETIES**

See International Development, Community and Environment 381. Staff/Offered periodically

288 SEMINAR IN CHINESE HISTORY/SEMINAR

See History 288. Mr. Ropp/Offered periodically

289 ADVANCED DEVELOPMENT THEORY/SEMINAR

See International Development, Community and Environment 389. Mr. Peet/Offered every year

290 SENIOR CAPSTONE SEMINAR

Designed to provide senior international development and social change majors and students entering the B.A./M.A. program the opportunity to apply their undergraduate training to some of the main contemporary and cutting-edge themes in international development, as well as prepare them for further work (either advanced study or entry to the job market) in international development. Themes studied include globalization as it relates to international development, refugees and forced migration, human rights, environmental protection, implications for development of the spread of religious-based extremism, food security, foreign policy and humanitarian aid. Staff/Offered every year

**291 REFUGEES AND FORCED MIGRATION/
SEMINAR**

Permission of instructor required. See International Development, Community and Environment 30297. Ms. Hammond/Offered every year

292 SEMINAR IN CARTOGRAPHY/SEMINAR
See Geography 294. Offered periodically/Staff

293 ADVANCED TOPICS IN INTERNATIONAL RELATIONS/SEMINAR
Focus changes with each offering, depending on faculty interest. Recent topic: "Development, Underdevelopment, and the Causes of Internal Conflict." Open to juniors and seniors. Staff/Offered every year

294 PARTICIPATION AND ENVIRONMENTAL MANAGEMENT/LECTURE, DISCUSSION
Focuses on community-based participation as a means to plan and implement sustainable practices. Examples of local resource user systems are investigated to evaluate how practices of individual managers in the Third World—farmers, herders, fishermen—impact the environment. Staff/Offered every year

296 GIS AND LOCAL PLANNING/SEMINAR, PROJECT
Provides field training with Global Positioning System (GPS) receivers, and explores issues and procedures involved in the application of GIS to local government and land-use planning. Develops hands-on familiarity with Arc/Info vector-based system and its application in database development (data conversion), routine data management, and planning. Prerequisites: ID 190 or permission. Mr. Marcano/Offered every semester

297 HONORS THESIS
Staff/Offered every semester

298 INTERNSHIP
Contact the International Development, Community and Environment office for internship proposal forms. Staff/Offered every year

299 INDEPENDENT STUDY
Students design an independent research course in conjunction with a professor. Staff/Offered every year

**INTERNATIONAL DEVELOPMENT,
COMMUNITY AND ENVIRONMENT**

Department Faculty
William F. Fisher, Ph.D., director:
anthropology, social movements and development, global civil society, NGOs, involuntary resettlement, ethnicity, political economy, South Asia
Kiran Asher, Ph.D.: *political economy, Feminist and critical development theory, post-colonial studies, cultural politics, Latin America*
David Bell, Ed.D.: *community empowerment, social transformation, teacher education and social change, educational policy reform, power relations and empowerment, peace building and conflict transformation, service learning*
Halina Szejnwald Brown, Ph.D.: *toxicology, risk analysis and management, industry and environment, environmental policy, international issues*
Timothy J. Downs, D.Env.: *natural resource management, water supply and sanitation, integrated capacity building, risk analysis, impacts assessment, Latin America*
Robert L. Goble, Ph.D.: *technology assessment, energy studies, atmospheric transport, risk analysis and management*
Laura Hammond, Ph.D.: *anthropology, refugees and forced migration, conflict, disaster management, food security, East Africa*
Eugenio J. Marcano, Ph.D.: *geographic information systems (GIS), remote sensing, global positioning systems, environmental chemistry*
Robert Gil Pontius Jr., Ph.D.: *GIS, quantitative modeling, spatial statistics, development economics*
Samuel J. Ratick, Ph.D.: *energy and environmental systems, environment and public policy, hazards, global change, modeling*
Laurie Ross, Ph.D.: *participatory action techniques, urban community planning, community and youth development*

Research Faculty

Cynthia Enloe, Ph.D.: *women and politics, militarization, ethnic and racial politics*
Richard B. Ford, Ph.D.: *African history, resource management, participation, sustainable development*
Christoph Hohenemser, Ph.D.: *physics, technology assessment, hazard management, energy policy*
Barbara P. Thomas-Slayter, Ph.D.: *local institutions, women and public policy, peasant-state relations, gender issues, nongovernmental organizations*

Affiliate Faculty

John Baker, Ph.D.: *biology, ecology, aquatic ecosystems, life-form traits*
Parminder Bhachu, Ph.D.: *urban anthropology, financial globalization, nationalism, gender*
Joseph deRivera, Ph.D.: *peace and justice, social psychology*
J. Ronald Eastman, Ph.D.: *geography, GIS, remote sensing, cartography*
Jody Emel, Ph.D.: *hydrology, resource/environmental geography, feminist theory*
Susan Foster, Ph.D.: *ecology, evolutionary biology, population biology*
Jacqueline Geoghegan, Ph.D.: *resource economics, environmental policy, land use*
Beverly Grier, Ph.D.: *African politics, international development*
Donna Hicks, Ph.D.: *conflict mediation, consensus building*
Robert Hsu, Ph.D.: *economic development*
Douglas Johnson, Ph.D.: *cultural ecology, geography, arid-lands management, land degradation*
Dorothy Kaufmann, Ph.D.: *French literature, feminism and women writers*
Laurence Lewis, Ph.D.: *land degradation, geomorphology, tropical agriculture*
Richard Peet, Ph.D.: *political economy of development, social theory*
Paul Posner, Ph.D.: *Latin American politics, democratic theory, comparative environmental politics*

Frank Puffer, Ph.D.: *regional economics, health economics*

Dianne Rocheleau, Ph.D.: *cultural/systems ecology, gender, forestry*

John Rogan, Ph.D.: *geographic information science, landscape ecology, land cover, change monitoring*

Paul Ropp, Ph.D.: *Chinese social and intellectual history*

Joseph Sarkis, Ph.D.: *operations management, environmentally conscious business practices*

Henry Steward, Ph.D.: *cartography, remote sensing*

Mark Tigan, M.P.A.: *community economics, neighborhood revitalization, intergovernmental financing techniques and strategies*

B.L. Turner II, Ph.D.: *cultural/human ecology, sustainability systems, land-cover and land-use change*

Graduate Programs

Clark University's Department in International Development, Community and Environment (IDCE) addresses one of the greatest challenges of the 21st century: sustaining environmental resources while promoting development. IDCE is an interdisciplinary department that offers four graduate programs: International Development and Social Change; Community Development and Planning; Geographic Information Sciences for Development and Environment; and Environmental Science and Policy. For undergraduates, there is a B.A. major in international development and social change and in environmental science and policy, as well as an accelerated B.A./M.A. program in both. There is also a B.A./M.A. program in community development and planning. (NOTE: For descriptions of these undergraduate programs, see their separate program sections of this catalog.)

IDCE teaching and research focus on community-based development and linkages between the human and ecological dimensions of change. Interdisciplinary courses on grassroots participation, conflict resolution, social

and environmental analysis, and GIS teach analytical skills and stress sustainable natural-resources management. Students learn tools designed specifically to organize information, mobilize resources, monitor environmental trends, or assess land-cover change. These programs enable graduates to link theory and practice and to turn ideals into action as they pursue careers in domestic and overseas development and environmental issues.

With 30 years of field experience in Africa, Asia, and Latin America, and a growing presence in urban neighborhoods, IDCE faculty and students seek three goals: 1) building community, 2) sustaining the environment, and 3) providing tools for analysis and social change. This unique approach builds ownership on local levels and fosters alliances among community groups, governments, and nongovernmental organizations. The resulting partnerships encourage collaborative solutions to some of development's most complex problems.

IDCE explores alternative approaches to overseas and domestic development through five key concepts:

Combining theory and practice: IDCE prepares students with development skills and theory, as well as experience in development practice. Through combinations of classes, internships, and field research activities, IDCE scholar practitioners learn specific skills for careers in development.

Stressing analytical tools: Students learn practical tools, especially those in which Clark has made significant contributions in global resource management. For example, Clark Labs created IDRISI, the world's most widely-used raster GIS software. Other core skills include conflict negotiation, socioeconomic and gender analysis, and participatory rural appraisal.

Focusing in sustainability: IDCE emphasizes both human and ecological dimensions of sustainability. For example, in the United States, IDCE faculty have carried out risk analysis to assess exposure to nuclear contamination in

Native American communities. In Madagascar, IDCE staff have worked with Malagasy colleagues to increase livelihoods, reduce forest depletion, and use community-based indicators to monitor changes. The research demonstrates that conservation and development are compatible.

Creating partnerships: With its focus on local institutions, IDCE helps local groups come to consensus on priorities. Through structured methodologies, the IDCE approach enables village and community institutions to speak with one voice in development planning, implementation, management, monitoring, and evaluation. United communities are then able to form durable partnerships with government and nongovernment agencies.

Linking local and global perspectives: IDCE students learn how local problems are affected by multiple economic and political global processes. These influences include international trade agreements, pressures on the environment, global environmental accords, and transnational social movement networks.

IDCE graduate students gain insight and experience beyond the classroom through internships in the United States and overseas. In the last few years, IDCE students have had internships with:

- The World Bank's Program for Latin-American and Caribbean Social and Environment Sustainability, helping to draft an environmental strategy focusing on livelihood and environmental risks
- Catholic Relief Services in Honduras
- The Partnership in Rural Empowerment and Development, helping to lead trainings in participatory rural appraisal in Ghana
- Massachusetts Department of Environmental Protection, identifying air-pollution sources
- The Center for Development and Population Activities (CEDPA) in Ghana, designing gender-sensitive programs

- California Department of Fish and Game, conducting a habitat assessment for an endangered fish through snorkel surveys
- Environmental Safety and Health Department of Texas Instruments, working on hazardous site closure
- United Nations Environmental Programme (UNEP) in Kenya, writing a global environmental outlook report
- The Boston Housing Authority, working with Hispanic families to mediate conflicts over housing issues
- The U.S. Forest Service using GIS to help manage a national forest
- Oxfam-America in Cambodia, helping a local organization to build gender awareness
- The Carter Center in Atlanta, working in the Global Development Initiative

IDCE Research Opportunities

IDCE research offers faculty and students the opportunity to work individually and cooperatively on important issues. Recently, IDCE had six Fulbright Fellowships awarded in one year to students to conduct research overseas. Their topics ranged from assessing environmental and cultural impacts of ecotourism in Morocco and monitoring land-cover change in a protected area in Sumatra to building a geodatabase on water use at the Water Research Institute in Israel.

Other recent sponsored field research has included:

- an international development and social change major received a Fulbright Research Fellowship to examine how development and conservation initiatives can complement one another in Madagascar.
- a B.A./M.A. student won a Fulbright Fellowship to teach English as a Second Language in Korea and to conduct research on sustainable tourism.
- a graduate student and Kenyan doctor of veterinary medicine received sponsorship from Heifer Project International to write a manual for incorporating gender into livestock extension services in Africa.
- a graduate student and former Peace Corps volunteer in West Africa won a Fulbright Fellowship to use GIS to monitor mangrove deforestation in Senegal.
- a graduate student and former AFRICARE staff member and Peace Corps volunteer won a Switzer Fellowship to study integrating local knowledge and participation into policy management for New England fisheries.

Research Activities

IDCE works closely with the George Perkins Marsh Institute and its affiliated research centers:

The George Perkins Marsh Institute (GPMI)

is dedicated to research on one of the most fundamental questions confronting humans: what is and ought to be our relationship with nature? Built on a tradition of basic and applied research on environmental hazards and international development, the institute examines human-environment relationships across a wide range of topics, including the human dimensions of global environmental change and the development and application of geographic-information systems. The institute fosters interdisciplinary, team-based research that engages graduate students and research faculty in problem formulation and resolution.

The Center for Community-Based

Development - conducts research on community institutions, governance, gender, participation, devising partnerships, and resolving conflicts within and among neighborhood/community institutions.

Clark Labs for Cartographic Technology and

Geographic Systems - a world leader in the creation of GIS and image-processing software, Clark labs provides affordable access to the frontiers of spatial analysis including IDRISI and CartaLinks.

Graduate Programs

IDCE includes four graduate programs:

- **International Development and Social Change**
- **Community Development and Planning**
- **Geographic Information Sciences for Development and Environment**
- **Environmental Science and Policy**

The IDCE department stresses a cross-disciplinary approach linking geography, economics, government, history, anthropology, and the environmental sciences. IDCE master's degree programs offer opportunities for present or future development professionals to move from entry-level positions to career-track opportunities. Each program requires ten courses as well as a final project, research paper or critical review paper. The geographic information sciences for development and environment program may be taken either as an intensive 12-month sequence or be spread out over a longer time period; the environmental science and policy; international development and social change, and community development and planning programs normally take 18 to 24 months. To be eligible, a candidate needs a baccalaureate degree (or equivalent). Some field experience in overseas or domestic work related to environment and/or development is preferred.

International Development and Social Change

The master's degree in international development and social change is designed for present and future practitioners in grassroots and community-based development. Offering alternatives to centralized planning and implementation, this program has been a pioneer in participatory development and a leading force to create tools for social change. For a quarter of a century, IDCE faculty have done critical work in community-based development in Africa, Asia, and Latin America. These experiences have reinforced their conviction that local participation is key to sustainable development. The IDCE participatory approach builds own-

ership on local levels and fosters partnerships between local institutions and external agencies.

Through action-oriented studies linking theory and practice, international development and social change students learn to identify resources, organize information, help communities agree on priorities, and draft action plans. The program emphasizes grassroots methods and tools in data gathering and assessment, gender analysis, program management, conflict negotiation, project design, monitoring, evaluation, participatory rural appraisal, and participatory action research. Course work introduces both alternative and traditional theories and provides practical skills to advance professional goals in development.

The master's degree in international development and social change prepares scholar/activists to work on the front lines of international development. Its unique blend of theory and practice enables development practitioners to link local planning and action to policy making at different levels. The program also focuses on gender issues and social justice-bridging differences in postconflict areas, building alliances among institutions, and giving marginalized people a voice in development.

For more information, visit
www.clarku.edu/departments/idce/id.

International Development and Social Change Courses of Study

This master's degree requires 10 courses. Of these, three are required, two are skill courses, and the remaining five are electives in the student's field of specialization. A final project, research paper or critical review paper completes degree requirements.

International Development and Social Change Required Core Courses

IDCE 314 Research Design and Methods - reviews topics in social research design and methodology including problem definition, research strategies, measurement, sampling, and data-collection techniques and procedures.

IDCE 360 Development Theory - examines development theories, issues, and practices emphasizing the evolution of ideas and the search for alternative approaches to development.

IDCE 361 Development Programs and Project Management - explores relationships among development theory, project implementation, and management. Topics include project design, implementation, management, budget monitoring, scheduling, work plans, and evaluation.

International Development and Social Change Skill Courses: (A sampling: two required)

IDCE 305 Qualitative Research Methods

IDCE 310 Introduction to GIS

IDCE 324 Computers and Quantitative Methods

IDCE 331 Risk Analysis and Management

IDCE 332 Environmental and Social

Impacts Assessment

IDCE 357 Dynamic Environmental Modeling

IDCE 359 Humanitarian Assistance in Conflict/Postconflict Contexts

IDCE 366 Principles of Conflict Negotiation and Mediation

IDCE 367 Quantitative Modeling

IDCE 371 Digital Image Processing

IDCE 388 GIS and Local Planning

IDCE 395 Participation and Environment

IDCE 396 Advanced Topics in GIS

Community Development and Planning

The community development and planning program prepares individuals to take on the challenge of empowering local communities to develop effective strategies for identifying community goals and maximizing their assets. Students participate in field research and internships that allow them to learn directly from community members about their needs, resources, and priorities and how best to mobilize local action to improve neighborhood

quality of life. Community development and planning graduates have the expertise to channel private and public community-development funds and programs to address local needs.

The community development and planning program builds practical and analytical skills such as data collecting and analysis, planning, conflict mediation, financial management, monitoring, and evaluation. The courses teach students to employ and to critique traditional and emerging community-development strategies and tools. This program also enables students to better understand the complex linkages between local action and the processes of policy making at a variety of levels. Students learn to critically examine the complex roles and effectiveness of informal neighborhood organizations, banks, private developers, local nonprofits, and government agencies in community development.

All students must complete a practicum. In the practicum, students participate on a research team with Worcester-city departments and local community-development organizations to help address important community issues. For example, students work with Worcester Education Partnership (WEP), a secondary-school change initiative funded by a \$8-million grant from the Carnegie Corporation.

For more information, visit www.clarku.edu/departments/idce/degree/cdp.shtml.

Community Development and Planning Course of Study

The community development and planning program requires a minimum of 10 graduate course units. This includes three core courses in community development, two skills courses, and five elective courses related to the student's particular interests. All students must complete an internship with a community organization selected to provide training in practical skills required for successful work after graduation. Students may be exempt from internships if they have had significant prior experience.

**Community Development and Planning
Required Core Courses (3)**

- IDCE 314 Research Design and Methods or
- IDCE 344 Community Development and Planning Theory
- IDCE 346 Practicum in Community Development and Planning
- IDCE 30291 Qualitative Research Design and Methods

**Community Development and Planning
Skill Courses (select two)**

- IDCE 305 Qualitative Research Methods
- IDCE 310 Introduction to GIS
- IDCE 324 Computers and Quantitative Methods
- IDCE 331 Risk Analysis and Management
- IDCE 332 Environmental and Social Impacts Assessment
- IDCE 347 Globalization: Structure and Dynamics
- IDCE 357 Research Seminar in Dynamic Environmental Modeling
- IDCE 359 Humanitarian Assistance in Conflict/Postconflict
- IDCE 363 Decision Methods for Environmental Management
- IDCE 366 Principles of Conflict Negotiation and Mediation
- IDCE 367 Quantitative Modeling
- IDCE 388 GIS and Local Planning
- IDCE 395 Participation and Environment
- IDCE 396 Advanced Topics in GIS
- IDCE 30289 Community Development Finance
- IDCE 30290 Participatory Research Methods
- IDCE 30296 Nonprofit and NGO Management Issues

**Practicum in Urban Development
and Planning**

This practicum provides the capstone experience for the MA. Each year the practicum will focus on a different local issue. Below is a brief description of a recent practicum offered in the spring semester:

**Practicum I: The Economic Impact of
Housing Production**

Students in the practicum work with the City of Worcester Executive Office of Neighborhood Services Housing Department and two local community development corporations (CDC) to conduct an analysis of the economic and, to a lesser extent, the social impact of housing development in two low-income Worcester neighborhoods. Students examine the past eight years of housing-production activities of the CDCs corresponding to the initiation of the federal HOME program. Variables such as taxes, utilities, and usage of local stores by residents of CDC-produced housing units will be examined to assess the direct economic impact of housing. Participation in community activities is also studied to understand the social impact of housing. Ripple effects, such as other neighbors doing home improvements, are also examined. Costs associated with rehabilitating and maintaining properties will be included to determine under what conditions housing costs outweigh economic benefits. These results can be used to lobby funders to include housing development in low-income communities as an economic development tool.

**Practicum II: Youth Participation in Urban
Secondary Schools Reform**

Community-development students in this practicum have worked on the Worcester Education Partnership (WEP), a secondary school-change initiative funded by the Carnegie Corporation of New York. Graduate students worked as a research team on the WEP to examine the student perspective on school change. They used focus groups, interviews, meeting transcripts, and other forms of secondary data to determine students' educational priorities. Practicum students analyzed how the student perspective complemented and/or contradicted teacher, school administrator, and parent views on education. Students produced several reports and presented their findings and recommendations to the Worcester Public Schools senior management team, teachers, and community members.

Community Development and Planning Internships

Each student must complete an internship with a community organization. These internships will be selected to provide training in practical skills.

Examples of internships:

- Worcester's Neighborhood Cabinet. Interns synthesize and analyze individual neighborhood planning documents. They interview resident leaders on neighborhood development activities relative to the planning documents and produce a report of findings.
- Worcester Community Housing Resources. Students work in one of the key areas of this nonprofit housing development and lending organization (e.g. property development, property management, financial development).
- Central Massachusetts Regional Planning Commission. Students assess local compliance of federal environmental justice legislation with the opportunity to use GIS in practical setting.
- Oak Hill Community Development Corporation. Students work in one of the key areas of this CDC (e.g. community outreach, workforce development, property development, property management).
- City of Worcester Executive Office of Neighborhood Services-Housing Department. Interns assist the director of housing in creating a housing database, in developing a user-friendly Web site with housing documents and policies, and research local, state, and federal housing grant procedures.

Geographic Information Sciences for Development and Environment

The master's degree in geographic information sciences for development and environment is designed for practitioners in development, conservation, and environmental management who wish to enhance their skills and knowl-

edge in GIS applications. Sponsored jointly by the Graduate School of Geography and Department of International Development, Community and Environment, the M.A. degree is equally suited for professionals re-entering the job market and those seeking GIS experience to strengthen their existing careers. Studies focus on applications of GIS skills to spatial analysis for development and environment in industrial and developing regions.

The program emphasizes building the intellectual breadth required to understand development issues and the technical depth required for GIS analysis. Clark is home to IDRISI, the most widely used raster GIS software in the world, so students are exposed to state-of-the-art software modules. IDCE's program in international development and social change has been a leading force for creating tools of gender analysis and participation in domestic and international development. The combination of GIS with IDCE's expertise in international development, environmental risk, and hazards management make this M.A. program truly unique.

An additional benefit is student opportunities for collaborative research with faculty. Students studying geographic information sciences for development and environment are working with faculty on the HERO project, a multiyear grant from the National Science Foundation focusing on water quality, land-use change and global climate change.

For more information, visit www.clarku.edu/departments/idce/degree/gis.

Geographic Information Sciences for Development and Environment Course of Study

The Master of Arts in Geographic Information Sciences for Development and Environment involves ten courses: three required courses as well as seven electives that focus on issues of environment and/or development. The required courses are: Advanced Topics in GIS, a core seminar that considers applications of GIS to environment and development, and one research seminar. At least one elective

must be a skill course in a technical field, and at least one elective must be a policy course in related social sciences. The geographic information sciences for development and environment program culminates in a project that utilizes GIS tools to analyze a problem in environment or development.

Geographic Information Sciences for Development and Environment Required Core Courses (3)

Prerequisite: Proficiency in GIS - either demonstrated in a one-week workshop in August or through IDCE 310 Introduction to GIS - fall semester

IDCE 391 Geographic Information Sciences for Development and Environment Seminar - fall semester

IDCE 394 Geographic Information Sciences for Development and Environment Seminar - taken the semester of graduation

IDCE 396 Advanced Topics in GIS - spring semester. Considers newest theories and applications in GIS including geodesy, change and time series analysis, uncertainty, and multicriteria decision making.

Geographic Information Sciences for Development and Environment Skill Courses (select two)

Skill Electives (at least one chosen from technical fields, such as):

IDCE 310 Introduction to GIS

IDCE 314 Research Design and Methods

IDCE 324 *Computer and Quantitative Methods*

IDCE 331 Risk Analysis and Management

IDCE 332 Environmental and Social Impacts Assessment

IDCE 349 Spatial Analysis

IDCE 356 Integrated Natural Resources Management

IDCE 363 Decision Methods for Environmental Policy and Analysis

IDCE 367 Quantitative Modeling

IDCE 371 *Digital Image Processing*

IDCE 385 Research Themes in GIS

IDCE 388 *GIS and Local Planning*

[Note: *Italics* means highly recommended.]

Geographic Information Sciences for Development and Environment Tracks

There are two geographic information sciences for development and environment tracks: students may choose to complete their degrees in 12 months or in three semesters. The 12-month track consists of four courses in the fall semester, four in the spring semester and two in the summer. The two summer courses are IDCE 393 and IDCE 394.

The three-semester track allows any combination of electives, as long as 10 courses are completed, including the three required geographic information sciences for development and environment courses.

Student Projects

Each student completes a project in which an aspect of GIS analysis is applied to a problem in environment and/or development. Work begins on the project during the IDCE 391 seminar in the fall and continues in the IDCE 394 seminar during the semester of graduation. For the 12-month track, the analysis and final summation are carried out in the summer with formal presentations in August. For the three-semester track, project presentation is in December.

Three of the geographic information sciences for development and environment seminars (IDCE 392, 393, and 394) are research courses in which students work one-on-one with their research adviser on their final GIS project. These seminars are offered every semester.

The Environmental Science and Policy Program

Effective environmental management in the 21st century requires not only an understanding of natural processes, but also of how we interact with our natural environment, how we work with other stakeholders to make policy, and how we apply technologies. The master's

degree in environmental science and policy trains individuals to play a vital role in bridging the gaps between ideas, interests, disciplines, and cultures.

Environmental science and policy program graduates become cross-disciplinary professionals, able to apply natural- and social-science knowledge to policy making and technology choices in developed and developing countries. They work with and between stakeholders to understand environment-development problems, plan solutions, and implement innovative strategies that are flexible, cost effective, and sustainable.

The environmental science and policy master's program develops students' abilities to integrate the natural and social sciences in areas such as: natural resources management, risk analysis and management, and environmental and social impacts assessment of technology choices.

At Clark, graduate environmental science and policy students benefit from stimulating opportunities:

- to interact with risks/hazards scholars at the world-renowned George Perkins Marsh Institute;
- to link GIS with environmental decision making in the United States and abroad;
- to work with innovators of sustainable resource-management strategies;
- to learn community-based participatory approaches from field practitioners;
- to spearhead integrated capacity-building approaches to sustainability;
- to interact with graduate students from around the globe.

Clark University's interdisciplinary master's degree in environmental science and policy prepares students to find creative approaches to the complex issues relating to sustainable management of Earth's environmental resources. See www.clarku.edu/departments/idce/environmentalscience.

The Environmental Science and Policy Course of Study

To be eligible for the environmental science and policy master's degree program, a candidate needs a baccalaureate degree (or equivalent). Domestic or overseas field experience related to environmental issues is desirable.

Graduates in all fields are welcome, but preference is given to candidates who have proficiency in one or two areas from the following two groups:

- 1) basic and/or applied natural science or engineering (e.g. anthropology, biology, chemistry, computer science, ecology, engineering disciplines, environmental science, epidemiology, geology, mathematics, geography, physics, statistics, toxicology), preferably with some social science or policy studies, or
- 2) basic and/or applied social science (e.g. economics, international development, international relations, management, political science, psychology, sociology) with good quantitative skills and preferably some natural science

Ten courses are necessary to complete the master's degree in environmental science and policy: three required core courses, two skills courses, and five elective courses in the student's particular environmental interest.

Students with a strong interest in independent research are encouraged to complete a master's thesis (two credits) or a critical review paper (one credit), based on research participation with environmental science and policy or an approved affiliated faculty. Both options culminate in an oral presentation.

Environmental science and policy graduate students can enroll in courses in other departments as approved by the graduate program adviser.

The Environmental Science and Policy Required Courses (3)

Core courses provide environmental science and policy graduate students with a common academic experience and background knowl-

edge. The three required environmental science and policy core courses are:

- IDCE 30287 Fundamentals of Environmental Science
- IDCE 363 Decision Methods for Environmental Management and Policy
- IDCE 382 Management of Environmental Pollutants

The Environmental Science and Policy Skills Courses (2)

Students, in consultation with the graduate adviser, must select two skills courses from IDCE course offerings. This skills list includes, but is not limited to:

- IDCE 324 Computer and Quantitative Methods in Risk Analysis
- IDCE 352 Technology and Environmental Assessment
- IDCE 356 Integrated Natural Resources Management
- IDCE 357 Dynamic Environmental Modeling
- IDCE 331 Risk Analysis and Management
- IDCE 332 Environmental and Social Impacts Assessment
- IDCE 349 Advanced Topics in Spatial Analysis
- IDCE 362 Behavior and Distribution of Environmental Pollutants
- IDCE 391 GIS for Development and Environment
- IDCE 310 Introduction to GIS
- IDCE 329 Management of Arid Lands
- IDCE 372 Groundwater Hydrology and Management
- IDCE 371 Digital Image Processing
- IDCE 388 GIS and Local Planning
- IDCE 396 Advanced Topics in GIS
- IDCE 305 Qualitative Research Methods
- IDCE 367 Quantitative Modeling
- IDCE 395 Participation and Environment
- IDCE 366 Principles of Negotiation and Mediation

IDCE Courses

300 SOCIAL ANALYSIS AND ACTION - NORTH AND SOUTH/SEMINAR

Focuses on a critical concern for this century—the enduring inequalities that plague much of the world's population. With the scale of human poverty increasing, discrimination in all forms—whatever their basis—bear close examination. This course in social relations analysis explores the patterns and trends creating and maintaining disadvantage; it identifies approaches to social impact assessment (SIA), and enables students to work in teams to assess the structures, processes and politics of disadvantage in a specific social system.

Staff/Offered every other year

303 CULTURE, CONSUMPTION AND CLASS IN LOCAL AND GLOBAL CONTEXTS/LECTURE, DISCUSSION

See Sociology 250. Ms. Bhachu/Offered every other year

304 SEMINAR ON WATERSHED ECOLOGY/ SEMINAR

Examines the current scientific literature on the functional ecology and biogeochemistry of contrasting terrestrial ecosystems. Topics covered include the inputs, outputs, and internal transfers of water and nutrients in temperate hardwood forests, pine barrens, tropical rain forests, montane cloud forests, eucalypt woodlands, and arid environments. The processes of rock weathering, leaching from above-ground vegetative surfaces, nutrient uptake by plants, atmospheric inputs, and stream discharge of nutrients are emphasized. The Hubbard Brook ecosystem study is considered in detail with a field trip to the Hubbard Brook experimental watershed in the White Mountains.

Staff/Offered every other year

305 QUALITATIVE RESEARCH METHODS: SKILLS AND APPLICATIONS/LECTURE, DISCUSSION

See International Development and Social Policy 255. Ms. Rocheleau/Offered every year

306 GLOBAL ECONOMIC GEOGRAPHIES/LECTURE, DISCUSSION

See Geography 256. Ms. Aoyama/Offered every other year

307 DEVELOPMENT AND REGIONAL INTEGRATION/ SEMINAR

See International Development and Social Policy 258. Staff/Offered periodically

308 COMPARATIVE POLITICS OF WOMEN/ LECTURE, DISCUSSION

See Government 208. Staff/Offered every other year

309 ROOTS AND ROUTES: IMMIGRANTS, DIASPORAS AND TRAVEL/LECTURE, DISCUSSION

See Sociology 260. Ms. Bhachu/Offered every year

310 INTRODUCTION TO GIS/LECTURE, DISCUSSION

Introduces GIS as a data management, analysis, and mapping tool. Stresses fundamental logic and scope of problem solving using raster and vector systems. Although the course is computeroriented, no programming is involved. A formal-analysis course. Counts as a skills course or core course in mapping sciences/spatial analysis in geography major. Mr. Marcano/Offered every semester

311 AFRICAN ENVIRONMENTS AND GEOGRAPHICAL IMPLICATIONS/LECTURE, DISCUSSION

See Geography 211. Mr. Lewis/Offered periodically

312 FAMINE AND FOOD SECURITY/LECTURE, DISCUSSION

See International Development and Social Change 262. Ms. Hammond/Offered periodically

313 LATIN-AMERICAN POLITICS/LECTURE, DISCUSSION

An introduction and an overview of the key economic and political issues confronting Latin America today: economic development and social inequality, international debt, the breakdown of democracies as well as transitions from authoritarian rule, revolutions, and the role of working-class, women's, peasant, and ethnic movements. We will draw on the analytical perspectives of political economy and cultural politics to develop a nuanced and self-reflexive understanding of the complex

realities of Latin-American politics. Ms. Asher/Offered periodically

314 RESEARCH DESIGN AND METHODS/SEMINAR

Covers major topics in empirical social research design and methodology: problem definition, research strategies, measurement, sampling, data-collection techniques and procedures, and proposal writing. Staff/ Offered every year

315 ECOLOGY

See Environmental Science and Policy 216. Mr. Livdahl/Offered every year

317 ADVANCED TOPICS IN INTERNATIONAL RELATIONS

See International Development and Social Change 293. Staff/Offered every year

318 SEMINAR IN PHYSICAL ENVIRONMENT AND DEVELOPMENT/SEMINAR

The world is changing more rapidly than at any time in history. This course reviews patterns of change in the Third World and examines the role of environment and resource management in development. In-depth case studies are developed. Permission of instructor required. Mr. Lewis/Offered every other year

319 DEVELOPING SOUTHERN AFRICA/SEMINAR

See Government 219. Ms. Grier/Offered every other year

320 CHILD LABOR AND THE STATE: COMPARATIVE PERSPECTIVES/SEMINAR

See Government 218. Ms. Grier/Offered every year

321 THE FRENCH-SPEAKING WORLD/LECTURE, DISCUSSION

See International Development and Social Change 249. Ms. Kaufmann/Offered periodically

324 COMPUTER AND QUANTITATIVE METHODS IN GEOGRAPHY/LECTURE, LABORATORY

See Environmental Science and Policy 247. Mr. Ratick/Offered every other year

325 AFRICAN-AMERICAN POLITICS/LECTURE, DISCUSSION

See Government 224. Ms. Grier/Offered every other year

- 326 GLOBAL POLITICS OF DEVELOPMENT/LECTURE, DISCUSSION**
See Government 227. Staff/Offered periodically
- 327 COMPARATIVE POLITICS OF RACE, ETHNICITY, AND GENDER/LECTURE, DISCUSSION**
See Government 228. Staff/Offered every other year
- 328 ECONOMIC DEVELOPMENT/LECTURE, DISCUSSION**
See Economics 228. Mr. Hsu/Offered every other year
- 329 MANAGEMENT OF ARID LANDS/LECTURE, SEMINAR**
See Geography 228. Mr. Johnson/Offered every other year
- 330 SEMINAR IN CULTURAL AND POLITICAL ECOLOGY/SEMINAR**
See Geography 330. Mr. Johnson, Mr. Turner/Offered periodically
- 331 RISK ANALYSIS AND MANAGEMENT/SEMINAR**
Draws together disparate theories and methods for risk analysis of health, environmental, and technological problems. Includes dose-response calculations, exposure assessment, modeling, fault-tree analysis, uncertainty, and risk communication. Covers intermediate statistics, Monte Carlo methods, and forecast evaluation. Developed and developing country case studies will be compared. Mr. Downs/Offered periodically
- 332 ENVIRONMENTAL AND SOCIAL IMPACTS ASSESSMENT (ESIA)/SEMINAR**
Covers environmental and social impacts assessment in the United States and developing countries. For the U.S. context, explains basic documents, required processing, and agency and public involvement. Categories of impacts include socioeconomic impact, land use, water, air, cultural/historic resources, wetlands, and wildlife. In developing countries, ESIA is often required to grant loans for development. We discuss appropriate methodologies, case studies and cultural contexts. Mr. Downs/Offered every year
- 333 POPULATION, ENVIRONMENT, AND DEVELOPMENT/VARIABLE FORMAT**
See Sociology 232. Mr. London, Ms. Merrill/Offered periodically
- 334 TOPOGRAPHICAL MAPPING/SEMINAR**
See Geography 296. Mr. Steward/Offered every year
- 335 POLITICS OF VIETNAM AND THE PHILIPPINES/LECTURE, DISCUSSION**
See Government 236. Offered every other year
- 336 CITIES AND CULTURE: THE EUROPEAN CITY/LECTURE**
See Geography 242. Mr. Bowden/Offered every other year
- 337 CULTURE, POLITICS, AND INTERNATIONAL DEVELOPMENT/LECTURE, DISCUSSION**
See International Development and Social Change 245. Mr. Fisher/Offered periodically
- 339 COUNTRY AND CULTURE/LECTURE, DISCUSSION**
See Geography 239. Offered every other year
- 340 HUMAN RIGHTS AND INTERNATIONAL POLITICS/LECTURE, DISCUSSION**
See International Development and Social Change 240. Staff/Offered periodically
- 342 SEMINAR IN LAND USE/COVER CHANGE/SEMINAR**
Examines land-use/cover change as the foundation for global change, environmental change, and sustainability science, and as the human-environment geographic subfield of these sciences. Topics addressed: international agendas, use-cover change globally and regionally, proximate and distal causes of change, theories of change, and spatially explicit modeling of change. Mr. Turner/Offered periodically
- 343 SEMINAR IN HUMAN DIMENSIONS OF GLOBAL CHANGE/SEMINAR**
Explores societal responses to and management of global environmental change. Major topics to be addressed are: societal response pools, adaptation vs. adjustment, surprise, vulnerability analysis, policy analysis, social learning, and regime theory. Staff/Offered periodically

344 LOCAL COMMUNITY DEVELOPMENT AND PLANNING THEORY/SEMINAR

Engages students in the various theories, debates, and strategies regarding the development of urban communities. Students analyze and critique traditional and emerging community-development frameworks, strategies, and tools. Local community-development practitioners present a field perspective. Required for community development and planning program. Ms. Ross/Offered every year

346 PRACTICUM IN COMMUNITY DEVELOPMENT AND PLANNING

Engages students to work as a team on a critical community development project. Students gain skills in field research, applied qualitative and quantitative data analysis, multidisciplinary teamwork, negotiation with clients, and writing professional reports. Practicum clients and topics have included a project with the Worcester Public Schools to involve public-school students in urban secondary-school reform and work with the city of Worcester and two community development corporations on assessing the economic impact of housing production in low-income neighborhoods. Ms. Ross/Offered every year

347 GLOBALIZATION: STRUCTURES AND DYNAMICS/SEMINAR

See Sociology 288. Mr. Ross/Offered periodically

349 ADVANCED TOPICS IN SPATIAL ANALYSIS/SEMINAR

Explores spatial statistics and spatial decision models. The spatial statistics part of the course focuses on point, block and global estimation, fitting variogram models, kriging, and spatial simulation. The prescriptive modeling part will focus on location/allocation-based decisions models including private- and public-sector facility location problems and land allocation models. The topics covered are closely linked to the underlying spatial analytic methodologies used in, and often illuminated by examples developed with, Geographic Information Systems (GIS). The spatial statistics module in the IDRISI GIS will be used. Runs on the

"Socratic" method with some high-tech twists. Students are assigned a topic per week to prepare material and lead discussion. Pass/fail. Grading is based on class participation. Mr. Ratick/Offered every semester

352 TECHNOLOGY AND ENVIRONMENTAL ASSESSMENT/SEMINAR

A survey of analytic techniques used in evaluating environmental conditions and the impacts of technology. These techniques consist of formal methods such as cost-benefit, risk-benefit, cost-effectiveness, and decision analysis. They also include methods used to elicit human judgment and behavioral responses in evaluating complex environmental and technical systems. Draws on case studies and teaches students to make both quantitative and qualitative assessments. Mr. Ratick/Offered every year

353 INTERNATIONAL POLITICAL ECOLOGY/LECTURE, DISCUSSION

See Geography 353. Ms. Rocheleau/Offered every other year

354 THIRD WORLD WOMEN AND GENDER IN ECONOMIC DEVELOPMENT/SEMINAR

How did Third World women and gender concerns enter economic-development discourses? How have Third World women and gender been conceptualized within development practices? In turn, how have feminist theories about women and gender shaped economic development discourses? In exploring these issues, this graduate seminar will eschew the divide between theory and praxis that plagues development literature. Ms. Asher/Offered every year

355 SOCIAL FORESTRY, AGRO ECOLOGY AND DEVELOPMENT/SEMINAR

Considers importance of trees and forests to social and ecological well-being of people, emphasizing interests of rural people in Africa, Asia, and Latin America. Examines forest resources as a growing focus of political and economic action at local, national, and international levels. Concentrates on case-study examples of technical and policy innovations

in social forestry and agroforestry.
Mr. Rocheleau/Offered every other year

356 INTEGRATED NATURAL RESOURCE MANAGEMENT/SEMINAR

We use a watershed approach for the co-management of resources: air, water, soil, land, forests and wildlife. Integrated approaches require the collaboration of diverse interests to identify priorities and choose best management options. Case studies from developed and developing countries are compared. Physical science and social science concepts are brought together to analyze and solve resource management and challenges. Mr. Downs/Offered every year

357 RESEARCH SEMINAR IN DYNAMIC ENVIRONMENTAL MODELING/LECTURE, DISCUSSION

See Environmental Science and Policy 256.
Mr. Goble/Offered every other year

358 ADVANCED TOPICS FOR INTERNATIONAL DEVELOPMENT/SEMINAR

Staff/Offered periodically

359 HUMANITARIAN ASSISTANCE IN CONFLICT/POSTCONFLICT CONTEXTS/SEMINAR

In developing countries, conflict is often primarily a result of competition over access to scarce resources. Attempts to improve people's access to resources can have both constructive and harmful implications for reconciliation and peace-building processes. Interpersonal and intergroup tensions can impact the design and delivery of assistance long after the violence has ended. This course will explore the intricacies of providing humanitarian and development assistance in conflict and post-conflict situations. It will examine the practical aspects of working in conflict zones and of providing assistance to people who have been affected by war: the displaced, victims of violence, the traumatized, and others who live in environments made insecure by conflict.
Ms. Hammond/Offered every year

360 DEVELOPMENT THEORY

A graduate seminar examining development theory, relating theory, issues, and practice with an emphasis on the evolution of ideas and

the search for alternative approaches to development interventions. Ms. Asher/Offered every year

361 DEVELOPMENT PROGRAMS AND PROJECT MANAGEMENT/SEMINAR

Explores relationships between development theory and project implementation and issues of program and project management. Topics include project design, implementation, management, budget monitoring, scheduling, and evaluation. Focuses on problem identification, developing project proposals, designing environmental and social-impact assessments, and creating evaluation frameworks. Emphasizes case studies. Mr. Fisher/Offered every year

362 BEHAVIOR AND DISTRIBUTION OF ENVIRONMENTAL POLLUTANTS/SEMINAR

Provides simple techniques for estimating how chemicals will distribute in environmental media (air, water, soil and biota), where they accumulate, how long they persist, and how this leads to human exposure. Gives examples of simple calculations, includes links to Web sites for models and access to chemical data. Instead of just focusing on specific compartments, such as the atmosphere, or specific substances, such as PCBs, this course presents the bigger picture of how organic chemicals behave in our total environment. Mr. Downs/ Offered periodically

363 DECISION METHODS FOR ENVIRONMENTAL MANAGEMENT AND POLICY/LECTURE, DISCUSSION

Information on environmental impact assessments needs to be systematically organized and analyzed to be useful in the decision-making process. This course provides a survey of methods that are currently used to aid environmental makers (who include policy makers, environmental managers, and affected populations). Covers techniques such as: decision analysis, benefit/cost analysis, multicriteria evaluation, multiobjective analysis, multi-attribute utility theory, the analytical hierarchy process, and spatial analytical methods using geographical information systems. These methods will be evaluated with respect to their the-

oretical foundations, systems formulation, and appropriate application. A critical evaluation of the strengths and weaknesses of these methods will also be discussed. Mr. Ratick/Offered every year

364 SEMINAR ON MONITORING AND EVALUATION DEVELOPMENT PROJECTS

Reviews the growing literature relating to the theory and methods of evaluation to learn from mistakes of past development projects in order to design more effective ones in the future. Participants think through the implications of the review in evaluating development projects of their own choice. Staff/Offered periodically

365 GRADUATE SEMINAR IN ECONOMIC GEOGRAPHY/SEMINAR

See Geography 365. Ms. Aoyama/Offered every year

366 PRINCIPLES OF NEGOTIATION AND MEDIATION: AN OVERVIEW OF CONFLICT RESOLUTION APPROACHES

Offers an overview of the principles of conflict resolution that can be applied internationally as well as interpersonally. A general framework for the understanding of conflict is presented that includes: power-, needs-, interest-, and relationship-based conceptualizations of conflict resolution. Gives students a theoretical as well as practical experience of conflict. It explores some of the psychological obstacles that impede the resolution process and engages in a number of experiential exercises that help the student develop the interpersonal skills needed to transform conflict relationships. Ms. Hicks/Offered every year

367 QUANTITATIVE MODELING/LECTURE, DISCUSSION, LABS

See International Development and Social Change 260. Mr. Pontius. Offered every year

368 SEMINAR IN CARTOGRAPHY/SEMINAR

See Geography 294. Staff/Offered periodically

369 RELIGION, IDENTITY, AND VIOLENCE IN A GLOBALIZING WORLD/LECTURE, DISCUSSION

Examines the nature of religion and the interconnections among religious identity, political violence, and globalization in the contempo-

rary world. It will examine conflicts that arise between groups with different religious identities as well as conflicts between religions and secularization. It will consider how globalization has failed to satisfy so many people in the world, why religion has been raised as an alternative, and why the religious rejection of secularization has been so violent. Mr. Fisher/Offered periodically

370 ANIMAL AGRICULTURE/LECTURE, DISCUSSION

See Geography 370. Mr. Johnson/Offered every other year

371 DIGITAL IMAGE PROCESSING/LECTURE, LABORATORY

See Geography 293. Mr. Eastman/Offered every year

372 GROUNDWATER HYDROLOGY AND MANAGEMENT/LECTURE, DISCUSSION

See Geography 271. Ms. Emel/Offered every other year

373 SOCIAL MOVEMENT, GLOBALIZATION, AND THE STATE/LECTURE, DISCUSSION

See International Development and Social Change 253. Mr. Fisher/Offered every year

374 ADVANCED TOPICS IN COMPARATIVE POLITICS/SEMINAR

See Government 286. Ms. Enloe, Ms. Grier, Ms. Sperling/Offered every year

375 GENDER AND GLOBAL CHANGE/LECTURE, DISCUSSION

Explores gender as a variable shaping people's roles, responsibilities, obligations, and opportunities across cultures and nations, with particular attention to Third World societies; analyzes transformations taking place in gender roles, relations, et al, in the process of globalization; and clarifies approaches and identifies tools for socioeconomic and gender analysis in the context of participatory research and community empowerment. The course focuses on theoretical questions and policy issues, explores methods of gender analysis for research, and considers gender-sensitive strategies for alleviating poverty, generating income, and empowering disadvantaged social groups. Staff/Offered every other year

376 SPATIAL DATABASE DEVELOPMENT

See International Development and Social Change 276. Mr. Eastman, Mr. Marcano, Mr. Eastman/Offered every year

377 GENDER, ENVIRONMENT AND DEVELOPMENT/SEMINAR

See International Development and Social Change 277. Ms. Rocheleau/Offered every year

378 THE CREATION OF NATIONALISM, NATIONALIST CULTURES, AND SYMBOLS/LECTURE, DISCUSSION

See Sociology 255. Staff/Offered every year

379 TWENTIETH-CENTURY LATIN AMERICA/PROSEMINAR

See History 275. Ms. Roazen/Offered periodically

380 URBAN ECOLOGY: CITIES AS ECOSYSTEMS/LECTURE, DISCUSSION

See Geography 280. Ms. Rocheleau/Offered periodically

381 POLITICS AND POWER IN THIRD-WORLD SOCIETIES/LECTURE, DISCUSSION

Examines the evolving nation-state in the Third World, connections between colonialism and Third World political patterns, the interaction between politics and internal economic and social forces, as well as the political impact of ideologies. Analyzes the politics of such groups as the landless; urban poor; women; and ethnic, religious, clan, or caste groups. Examines patron-client relations, political parties, self-help associations, and peasant mass movements for their roles in socioeconomic and political change. Staff/Offered periodically

382 MANAGEMENT OF ENVIRONMENTAL POLLUTANTS/SEMINAR

Studies approaches to regulating hazardous chemicals in air, water, and food. The course is built around the three general types of interventions that have been practiced by the regulatory agencies over the last three decades: shifting to safer technologies; issuing licenses to pollute in the form of industrial emission permits; and setting standards for air, water, and food contaminants. The scientific controversies in setting standards and issuing permits are presented vis-à-vis the legislative mandates,

the need for benefit-cost accounting, and the scientific uncertainty. The strengths and weaknesses of command-and-control system versus the incentive-based system with regard to industrial enterprises are also discussed.

Emphasizes recent efforts to decrease government involvement in corporate environmental management and to shift towards an incentive-based regulatory system. While focus is on public policies in the United States, international comparisons with Western European and Eastern European countries are included. The course has a seminar format, with weekly student presentations and class discussions. Ms. Brown/Offered every year

383 TROPICAL ECOLOGY/LECTURE, DISCUSSION

See International Development and Social Change 283. Ms. Rocheleau/Offered every other year

384 ENVIRONMENT AND DEVELOPMENT IN THE MIDDLE EAST

See Geography 284. Mr. Johnson/Offered every other year

385 RESEARCH THEMES IN GIS/LECTURE, DISCUSSION

See Geography 389. Mr. Eastman/Offered every year

386 ADVANCED TOPICS IN COMPARATIVE POLITICS/SEMINAR

See Government 286. Ms. Enloe, Ms. Grier/Offered every year

388 GIS AND LOCAL PLANNING/SEMINAR, PROJECT

See International Development and Social Change 296. Mr. Marcano/Offered every semester

389 ADVANCED DEVELOPMENT THEORY/SEMINAR

A research seminar for students with backgrounds in development theory. Examines recent tendencies in development, focusing on the rise of neoliberalism as a hegemonic discourse. Critically examines shifts in World Bank thinking from basic needs to export orientation. The seminar uses recent changes in postapartheid South Africa as a case study. Mr. Peet/Offered every year

390 THESIS RESEARCH/THESIS OPTION

391-394 GIS FOR DEVELOPMENT AND ENVIRONMENT/SEMINAR

Required for M.A. in GIS for development and environment. The fall seminar is open to all students interested in GIS for international development. The spring session is restricted to geographic information sciences for development and environment graduate students and focuses on the research project. The two summer sessions are dedicated to project completion and presentation. Mr. Pontius/Offered every semester

395 PARTICIPATION AND ENVIRONMENTAL MANAGEMENT/LECTURE, DISCUSSION

See International Development and Social Change 297. Staff/Offered every year

396 ADVANCED TOPICS GIS/LECTURE, LABORATORY

Covers major research and application issues in GIS. Topics include geodesy, projections, change and time series analysis, error sources, assessment and propagation, analysis under conditions of uncertainty, and multicriteria and multiobjective decision making. Prerequisite: Geography 190 and permission of instructor. Mr. Eastman/Offered every year

397 MASTER'S THESIS

Master's degree candidates may register while working on research for their thesis or published paper. Staff/Offered every year

398 INTERNSHIP/FIELD WORK

Graduate students may elect to take graduate credit for extended internships. Permission of instructor. Contact the IDCE Office for internship proposal forms. Staff/Offered every semester

399 INDEPENDENT STUDY

Staff/Offered every semester

39210 ENVIRONMENT AND SOCIETY

Analyzes the relationship between human societies, especially those that are industrialized, and the natural environment. Among the topics to be considered are: the impact of industrialization on nature, the population-resource debate, the rise of modern environmental con-

cern and political action, and pesticides and energy policy issues. Staff/Offered every year

39211 FIELD RESEARCH IN YOUTH DEVELOPMENT AND HIGH-SCHOOL TRANSFORMATION/SEMINAR

Students engage in research on youth development in the context of urban high-school transformation. They work on a research team consisting of the instructor and two IDCE graduate students. Students participate in the creation of interview instruments, focus group protocols and survey designs. They conduct the interviews and focus groups with high-school students in Worcester's new small schools. Students are also involved in data analysis and report writing. Ms. Ross/Offered every semester

39212 INTRODUCTION TO COMPUTER AND QUANTITATIVE METHODS

Mr. Pontius/Offered every year

39213 MASTER'S RESEARCH PAPER/WORKSHOP (1/2 CREDIT PER SEMESTER)

Optional yearlong seminar for second-year IDCE master's degree students writing their final research paper. Staff/Offered every year

39214 LANDSCAPE ECOLOGY/LECTURE

See Geography 232. Mr. Rogan/Offered every year

39215 ECONOMICS OF POPULATIONS/LECTURE, DISCUSSION

See Economics 247. Mr. Weinrobe/Offered every other year

39216 ECOLOGY

See Environmental Science and Policy 216. Mr. Livdahl/Offered every year

39241 ENVIRONMENTAL TOXICOLOGY

See Environmental Science and Policy 241. Ms. Brown/Offered every other year

39246 CANCER: SCIENCE AND SOCIETY

See Environmental Science and Policy 246. Ms. Brown/Offered every year

39251 LIMITS OF THE EARTH/SEMINAR

Examines a variety of perspectives on the global environment and economic development, such as the biological concept of carrying capacity and economic concepts of growth. Topics covered include population growth,

food production, energy and other resources, and critical chemical cycles. Attention is paid to the national and international institutions which set policies on these issues. Central to the course is a critical analysis of concepts of sustainable development. The course is conducted as a seminar and also emphasizes quantitative tools in data analysis and systems modeling. Mr. Goble/Offered every year

30252 CORPORATE ENVIRONMENTAL MANAGEMENT

See Management 252. Mr. Sarkis/Offered periodically

30253 INTERNATIONAL POLITICAL ECONOMY

See Government 226.

30275 GENDER IN DEVELOPMENT PLANNING/SEVEN-WEEK MODULE (1/2 CREDIT)

This mini-course explores the rationale for incorporating gender into development planning and analysis and builds knowledge, expertise, and skills which will enable course participants to integrate gender analysis into their various fields of academic and professional responsibility. We clarify approaches and identify tools for gender analysis in the context of participatory research, institutional change and community empowerment. We also explore methods of gender analysis for their usefulness to national policies and programs and for the design, implementation, monitoring and evaluation of programs and projects. Ms. Thomas-Slayer/Offered periodically

30276 ENVIRONMENTAL LAW

See Environmental Science and Policy 276. Staff/Offered every year

30286 SUSTAINABILITY, INSTITUTIONS AND POLICY MAKING

See Environmental Science and Policy 286. Ms. Brown/Offered every year

30287 FUNDAMENTALS OF ENVIRONMENTAL SCIENCE/SEMINAR

Covers key scientific and technical topics and emphasizes quantitative skills of problem solving. Topic areas include: mass and energy transfer, mathematics of growth, water pollution, water quality control, air pollution, global

atmospheric change, and solid-waste management. The course aims to provide a solid foundation in important scientific aspects of environmental problems, complementing courses with a joint science-policy orientation, or more policy-oriented courses. Seminar includes a one-hour lab for problem solving. Mr. Downs/Offered every year

30288 APPLIED ECOLOGY

Staff/Offered every year

30289 COMMUNITY DEVELOPMENT FINANCE/LECTURE, DISCUSSION

This course introduces students to the field of community development; with a particular focus on finance. The class explores the roles of various "field actors," such as developers, community-development corporations, other nonprofits, for profits, banks, local governments, and low-income residents. Students learn about the use of governmental subsidies to achieve public purposes, hot and cold commercial real-estate markets, the basics of identifying financial gaps in public-spirited projects, the financial analysis necessary to attract debt and stimulate equity investment, strategies to fill the gaps, and ways to sustain projects. Familiarity with Excel spreadsheets is useful. Mr. Tigan/Offered every year

30290 PARTICIPATORY RESEARCH METHODS/SEMINAR

Explores a range of participatory, action-oriented, and empowering approaches and methods of inquiry. The course provides a learning environment and a process that enables students to deepen their understanding of the theory and practice of participatory research. It provides an opportunity to practice specific methods and strategies and to develop critical criteria and skills for implementing and assessing participatory methods. The course balances the theoretical and conceptual dimensions of participatory research and inquiry (through readings, case studies, and reflection on personal practice) with the application of participatory skills, methods, and strategies. Mr. Bell/Offered fall semester

30291 QUALITATIVE RESEARCH DESIGN AND METHODS/SEMINAR

Provides an introduction to qualitative inquiry and explores the major assumptions, language, and logic of qualitative research. The course emphasizes the modes of thinking and specific practices of qualitative research and focuses on conceptualizing and designing qualitative studies. It explores the issues and practices of qualitative inquiry; emphasizes strategies for developing research questions; and covers methods for data gathering, analysis, and interpreting qualitative research. Mr. Bell/Offered spring semester

30292 PARTICIPATORY TOOLS FOR DEVELOPMENT, PLANNING, AND ACTION/SEVEN-WEEK MODULE IN PARTICIPATION IN RURAL AND URBAN SETTINGS (1/2 ACADEMIC CREDIT)

In the last decade, participation has become a buzzword in development circles. Currently the concept is evolving into a more broadly cast approach called community development, community-based development (CBD), asset-based community development (ABCD), or community-driven development. While many publications and case studies have appeared on these approaches, there is a distinct lack of a systematic or structured methodology in presentation, execution, implementation, or evaluation of CBD. In this course students make such applications more systematic by reviewing the literature on participation, examining several development case studies that apply participatory tools, and gaining experience in the use of participatory techniques in an urban setting. Mr. Ford, Ms. Ross/Offered every year

30293 YOUTH AND COMMUNITY DEVELOPMENT: THEORY, POLICY AND PRACTICE/SEMINAR

This course integrates readings, class discussion, and field observations to understand the complex relationships between youth and community development. It provides an overview of adolescent development, with a specific focus on urban teens. Students are introduced to the strengths and challenges of young peo-

ple growing up in inner-city neighborhoods. The course examines neighborhoods and after-school programs as particularly important contexts for youth development. Students discover that few youth-development programs address community-level factors that influence young people's futures, and conversely, few community-development initiatives involve youth as key actors in the development process. As a final project, students develop proposals based on evidence and driven by theory to begin to fill this critical gap. Ms. Ross/Offered every year

30294 THEORETICAL PERSPECTIVES AND PRACTICAL DECISION MAKING IN DEVELOPMENT/SEVEN-WEEK MODULE (1/2 ACADEMIC CREDIT)

This course focuses on four theoretical perspectives on development and their implications for practical decision making in regard to policies and programs for two fishing communities in the fictitious country of Arcadia. Five key intellectual questions shape our discussions: Who are the disadvantaged in a given social system? What is the nature of their disadvantage? What are the social relations (structures and organizations) that maintain their disadvantage? What are the historical patterns and trends in these social relations? What are the relationships among the local, national, and international levels in creating and perpetuating these disadvantages? Ms. Thomas-Slayer/Offered every year

30295 STATE BUILDING: MIDDLE EAST/THE BALKANS

See Government 233.

30296 NONPROFIT AND NGO MANAGEMENT ISSUES/SEVEN-WEEK MODULE (1/2 ACADEMIC CREDIT)

This course is designed for anyone currently—or intending to—work, run, fund, or start a nonprofit or nongovernmental organization. This class is taught from the perspective of community-spirited action directed at social, economic, and housing programs and projects. Although the emphasis is on domestic non-

profit organizations, some of the sessions deal with international NGOs. In addition, many of the domestic issues (e.g. financial management and board of directors' relations) are transferable to international organizations. Major topics covered include board relations, financial management and reporting, and personnel management. Mr. Tigan/Offered every year

30297 REFUGEES AND FORCED MIGRATION/ SEMINAR

"Forced migration" is a term used to describe the process by which people flee political, religious, or social persecution; war or other civil disturbance; natural disasters or environmental causes including famine; and the impacts of development efforts. Forced migrants include refugees, internally displaced persons, and resettled or expelled persons. The presence of large numbers of forced migrants may provide not only obstacles and challenges to development, but can also present opportunities for meeting development goals. This seminar examines the causes of forced migration, methods used to respond to such migration by both hosts and migrants themselves, solutions to forced migration, and implications for development processes in areas affected by forced migration. Students are introduced to migration theory and practice through anthropological and other social science analysis, legal instruments, policy documents, and case studies of the lives of forced migrants and individual assistance operations. Open to graduate students. Undergraduates may register with instructor's permission. Ms. Hammond/Offered every year

30298 MODERN AFRICA/SEMINAR

See History 225. Mr. Kisse/Offered periodically

MANAGEMENT

Faculty

Edward J. Ottensmeyer, Ph.D., dean: strategic management, philosophy and business

Priscilla Elsass, Ph.D., associate dean:

organizational behavior, organizational theory

Margarete Arndt, D.B.A.: management of health-care organizations, clinical-practice patterns

Barbara Bigelow, Ph.D.: strategic management in health-care facilities, corporate political strategy

Mary-Ellen Boyle, Ph.D.: business and society, managing change

Gary Chaison, Ph.D.: union structure, government and growth; comparative industrial relations; collective bargaining

Keith Coulter, Ph.D.: marketing management, marketing strategy, consumer behavior

Dileep G. Dhavale, Ph.D., C.P.A., C.P.I.M.: financial and managerial accounting

Donna Gallo, Ph.D.: strategic management, global strategic management

Laura M. Graves, Ph.D.: employee recruitment and selection, managing diversity in organizations

William Mosher, M.A.: economics, finance

Joseph Sarkis, Ph.D.: operations management, environmentally conscious business practices

Inshik Seol, Ph.D.: accounting, financial and managerial accounting

Richard B. Spurgin, Ph.D.: derivative securities, stock futures and bond options

Joel Sternberg, Ph.D.: derivatives securities, investments

Maurry Tamarkin, Ph.D.: financial management, corporate finance

Jing Zhang, Ph.D.: management information systems

Adjunct Faculty

Caroline Chiccarelli, Ph.D.

Jeffrey Clopeck, J.D.

John L. Crawley, M.S., J.D.

Jane Gilligan, M.A.

Michael Holbrook, M.B.A.

Irene Houle, M.B.A.

Efrem G. Mallach, Ph.D.

Gerald McCarthy, Ph.D.
Thomas P. Millott, J.D.
Saeed Mohaghegh, M.B.A.
John Rainey, M.B.A.
Dan Sullivan, M.B.A.
Kristi Thompson, M.B.A.
Dennis Wadsworth, M.B.A.
Russell Wass, M.S.M.

Emeriti

Robert C. Bradbury, Ph.D.
Harold T. Moody, Ph.D.

Undergraduate Programs in Management

The Graduate School of Management offers four programs for undergraduates: the undergraduate major, the undergraduate minor, the five-year B.A./M.B.A. program, and the five-year B.A./M.S.F. program. Interested students should contact the director of program management and planning in the Graduate School of Management. Students should refer to the Graduate School of Management catalog for additional information on the M.B.A. and M.S.F. programs.

Major in Management

The management major incorporates a variety of disciplines to form an applied preprofessional program. Required and optional courses include offerings from a number of academic departments. The undergraduate management major and the M.B.A. and M.S.F. programs are accredited by the AACSB-International — The Association to Advance Collegiate Schools of Business.

The required curriculum for management majors consists of 10 prerequisite courses taken during the freshman and sophomore years, and eight required courses taken during the junior and senior years. Students must have at least a 2.0 overall grade-point average to declare management as a major. Students must take courses in the management major for letter grades. A 2.0 cumulative grade-point average in the

major courses is required for graduation. Students interested in graduate study toward an M.B.A. or M.S.F. degree through Clark's five-year program are encouraged to minor in management.

Requirements for Management Majors

Prerequisite Courses:

Freshman/Sophomore Years

MATH 113 Mathematical Problem Solving
or MATH 120 Calculus I

ECON 010 Economics: A Comparative
Approach

ECON 011 Principles of Economics

ECON 160 Introduction to Statistical
Analysis or PSYC 105 Quantitative
Methods

Environmental requirement (one of the following): EN 101, EN 224, EN 226, EN 251, EN 276, EN 282, ES 121, ES 122, GOVT 157, ECON 155, ECON 157, ECON 257, GEOG 014, MGMT 252*

MGMT 101 Principles of Accounting

MGMT 104 Introduction to Management
Information Systems

MGMT 170 Managerial Communications

MGMT 178 Business Law

MGMT 203 Management Accounting

(*MGMT 252 is a junior/senior course that can be used either to meet the environmental requirement or as a management elective but not both.)

Required Courses:

Junior/Senior Years

MGMT 210 Management and Behavioral
Principles

MGMT 230 Marketing Management

MGMT 240 Corporate Finance

MGMT 250 Operations Management

MGMT 260 Business Policy

MGMT 262 Business Ethics

Two Management Electives*

(*MGMT 299 may not be used to fulfill the management elective requirement.)

Undergraduate Minor in Management

Students with a primary interest in liberal arts, but who also want exposure to business-related topics, should consider management as an undergraduate minor. The required curriculum for management minors consists of six prerequisite courses taken during the freshman and sophomore years, and four required courses taken during the junior and senior years.

Requirements for Management Minors

Prerequisite Courses:

Freshman/Sophomore Years

- MATH 113 Mathematical Problem Solving
or MATH 120 Calculus I
- ECON 010 Economics: A Comparative Approach
- ECON 011 Principles of Economics
- ECON 160 Introduction to Statistical Analysis or PSYC 105 Quantitative Methods
- MGMT 101 Principles of Accounting
- MGMT 104 Introduction to Management Information Systems

Required Courses:

Junior/Senior Years

- MGMT 210 Management and Behavioral Principles
- MGMT 230 Marketing Management
- MGMT 240 Corporate Finance
- MGMT 250 Operations Management

Five-Year Programs

The Graduate School of Management offers undergraduate students an opportunity to earn a B.A. in a major, as well as an M.B.A. or M.S.F. degree. The program features:

1. an undergraduate major in any of the liberal-arts disciplines at the University (management is not recommended as a major for this program);
2. graduate courses, beginning in the senior year, leading to an M.B.A. or M.S.F. degree; and
3. a well-rounded education that combines an undergraduate liberal-arts education with a master's degree; students can earn both degrees in five years.

Student Advising and Entrance into the Program

Students should plan their undergraduate courses carefully to complete the requirements for both their major and the M.B.A. or M.S.F. degree within five years. The director of program management and planning is available to advise students interested in either five-year program.

Admission occurs after the sophomore year, but before the beginning of the senior year. Students must apply to the Graduate School of Management for admission by April 15 of their junior year. As part of the application, students must submit transcripts of undergraduate academic work and take the GMAT (Graduate Management Admission Test) or GRE for both programs. This admission requirement is in addition to the required admission into the University's fifth-year program (deadline April 1).

Work Experience

Five-year students are encouraged to participate in internships, summer jobs, or other experiences as undergraduates for exposure to management issues and environments. The exposure improves a student's appreciation of graduate courses and enhances his or her credentials and qualifications for job placement. A graduate-level internship also is required as part of the M.B.A. and M.S.F. degree programs.

Five-Year B.A./M.B.A. Program

Freshman/Sophomore Years

Undergraduate courses must be passed with a B- or better to waive any M.B.A. requirement.

MATH 113 Mathematical Problem Solving and/or MATH 120 Calculus I

Note: Math proficiency is an entrance requirement for the M.B.A./M.S.F. programs. It is demonstrated in one of three ways:

- a quantitative score in the 70th percentile on the GMAT/GRE

- a quantitative score between the 50th and 70th percentile on the GMAT/GRE plus one undergraduate math course passed with a grade of B– or better
- two undergraduate math courses passed with a grade of B– or better

Optional courses that can waive some graduate-level classes:

ECON 160 Introduction to Statistical Analysis or PSYC 105 Quantitative Methods (waives STAT 4005)
 MGMT 101 Principles of Accounting and MGMT 203 Management Accounting (waives ACCT 4100)
 MGMT 104 Introduction to M.I.S. (waives MIS 4501)
 MGMT 178 Business Law (waives MGMT 4708)
 MGMT 230 Marketing Management (waives MKT 4401)
 MGMT 240 Corporate Finance (waives FIN 4201)
 MGMT 250 Operations Management (waives OM 4601)

Junior Year

Apply to the program (deadline is April 15). For nonmanagement majors it is helpful, but not required, that students should have no more than one to three classes remaining for undergraduate degree requirements (i.e. perspective courses and requirements for major/minor) at the completion of junior year so that four-and-one-half to six units of graduate-level courses can be taken in the senior year. Management majors may be restricted in the number of graduate M.B.A. or M.S.F. courses they can take during their senior year. Management majors should consult with the Graduate School of Management program director.

Senior Year - Fall (three units)

The following courses are recommended, although individual programs of study may vary.

MGMT 4301 Creating Effective Organizations: Strategic Decision Making (1 unit)

ECON 4004 Management Economics (1/2 unit)

MIS 4501 Management Information Systems (1/2 unit)

MIS elective (1/2 unit)

MGMT 4305 Career Development (1/2 unit free elective, required prior to graduate internship)

Senior Year - Spring (three units)

MGMT 4302 Creating Effective Organizations: Leadership (1 unit)

ACCT 4100 Foundations of Accounting (1 unit)

STAT 4005 Statistical Methods (1/2 unit)

STAT 4006 Management Decision Models (1/2 unit)

5th-year (10 units)

FIN 4201 Financial Management (1/2 unit)

FIN 5301 Stock & Bond Valuation or
 FIN 5302 Quantitative Techniques for
 Derivatives Valuation (1/2 unit)

MKT 4401 Marketing Management (1/2 unit)

MKT 4402 Marketing Strategy and
 Simulation (1/2 unit)

MGMT 4709 Business in Society (1/2 unit)

OM 4601 Operations Management (1/2 unit)

MGMT 4707 International Management
 and Global Competition (1/2 unit)

MGMT 4708 Contemporary Business Law (1/2 unit)

Capstone (1)

Three to four units of electives in area of concentration

One to two additional units of free electives to complete 5-1/2 units of electives, including MGMT 4305 Career Development (if required)

Graduate Internship (Required for those who have less than three years work experience in the United States. No academic credit.)

Five-Year B.S./M.S.F. Program

Freshman/Sophomore/Senior Years

ECON 160 Introduction to Statistical Analysis or PSYC 105 Quantitative Methods
ECON 010 Economics: A Comparative Approach
ECON 011 Principles of Economics
MATH 120 Calculus I
MGMT 101 Financial Accounting

These five courses must be passed with a B– or better to count toward the M.S.F. prerequisites.

Junior Year

Apply to the program (deadline is April 15).

Senior Year

Complete undergraduate degree requirements

5th year (10 units)

FIN 5301 Stock & Bond Valuation (1/2 unit)
FIN 5302 Quantitative Techniques for Derivatives Valuation (1/2 unit)
FIN 5311 Portfolio Management (1/2 unit)
FIN 5309 Financial Econometrics (1/2 unit)
FIN 5201 Case Studies in Corporate Finance (1 unit)
FIN 5310 Case Studies in Derivatives (1 unit)
FIN 5207 Advanced Derivatives (1 unit)
FIN 5208 Fixed Income Securities (1 unit)
FIN 5203 Investment Strategies (1 unit)
FIN 5281 Case Studies in International Finance (1 unit)

Electives: two units of electives in Finance, Accounting or Economics

Courses

020 STRIKES IN AMERICA/FIRST-YEAR SEMINAR

Strikes are the most exciting, controversial and unpredictable events in labor relations. In this seminar, we examine the evolution of strikes in the United States from their early use for organizing workers to their later use during collective bargaining. We examine the workers' right to strike and the employers' right to replace strikers, the various forms of strikes, the theory

and practice of striking, the unions' reliance on community coalitions and political allies during strikes, and the ways that unions and employers manage legitimacy during strikes. The class will review the causes, tactics and outcomes of several recent strikes including those of nurses, baseball players, engineers, janitors, longshoremen, coal miners, teachers, and slaughterhouse workers. Finally, we ask whether strikes are still effective in this age of globalization, plant relocation, low union membership, public indifference, and management's frequent use of striker replacements.

101 PRINCIPLES OF ACCOUNTING/LECTURE, DISCUSSION

A user-oriented approach teaches students an understanding of accounting information and the environment in which it is developed and used. Topics include: history of accounting, accounting cycle, accounting for assets, liabilities, and equity, and international accounting issues. Staff/Offered every semester

104 INTRODUCTION TO MANAGEMENT INFORMATION SYSTEMS/LECTURE, DISCUSSION

Emphasizes basic knowledge needed to understand the field of information systems. Topics include information and organization, database management, recent developments in computer technology and their effect on management, and information systems design and management. Staff/Offered every semester

170 MANAGERIAL COMMUNICATIONS/LECTURE, DISCUSSION

Helps managers communicate with confidence by showing them how to prepare clear, concise memos, letters, reports, and proposals and deliver effective oral presentations. Through class participation and in-class writing exercises, students develop confidence in their ability to communicate. Staff/Offered every semester

178 BUSINESS LAW/LECTURE, DISCUSSION

Examines the legal framework in which U.S. businesses operate. Emphasizes areas of the law such as contract negotiation and provisions, the Uniform Commercial Code, government

regulations, consumer protection, and tort liability. Provides students with an understanding of the business and legal environments that will guide future management decisions and inquiry. Not open to first-year students. Staff/Offered every semester

203 MANAGEMENT ACCOUNTING/LECTURE, DISCUSSION

Emphasizes accounting from the management perspective. Students learn principles of management decision making using accounting information. Prerequisites: Management 101; not open to first-year students. Staff/Offered every semester

210 MANAGEMENT AND BEHAVIORAL PRINCIPLES/LECTURE, DISCUSSION

General principles of management are studied, emphasizing the behavior of people in organizational settings. Topics include principles of organization, decision making, leadership, motivation and rewards, job satisfaction, appraising employee performance, and the impact of demographic diversity on organizations. Prerequisite: juniors and seniors only. Staff/Offered every year

211 ORGANIZATION STRUCTURE AND PROCESS/LECTURE, DISCUSSION

Surveys major concepts of organizational theory, applying these concepts to business problems. Topics include properties of organizational environments, organizational structure, organizational power and conflict, and organizational change. Prerequisites: Management 210; juniors and seniors only. Staff/Offered periodically

215 ENTREPRENEURSHIP/LECTURE, DISCUSSION

Successful entrepreneurship begins with a vision. Like an artist, the entrepreneur must be able to translate creative vision into something tangible and real. This course, for both management and nonmanagement majors, is designed to introduce students to the entrepreneurial process so that they may begin to shape their own entrepreneurial vision. Course objectives will include a realistic preview of

the challenges of entrepreneurship, an understanding of the legal and ethical environment within which entrepreneurs operate, the ability to develop a business plan, and the skills to think critically and be able to evaluate opportunities in the business or nonprofit sectors. The course will also include self-assessment activities designed to help students assess their own entrepreneurial potential.

222 WOMEN IN THE HEALTH-CARE SYSTEM/SEMINAR

Women play an important role in the U.S. health-care system. They represent the majority of patients, dominate many health-care occupations, and provide an important link between their families and the formal health-care system. This seminar course for juniors and seniors will explore literature that describes and conceptualizes 1) how we define health and sickness as a society; 2) women in their various roles in the health-care system and 3) how the health-care system identifies and meets women's need for health services. The subject matter is of particular salience for students who have an interest in women's studies or are thinking of a career that will bring them in contact with the health-care system, be it as a provider or manager.

225 HUMAN RESOURCE MANAGEMENT/LECTURE, DISCUSSION

Covers general functions of human resource management, including job design, recruitment, selection, management development and training, performance appraisal, employee rights, labor relations and collective bargaining, wages and fringe benefits, and compensation systems. Prerequisite: juniors and seniors only. Staff/Offered periodically

226 INDUSTRIAL RELATIONS/LECTURE, DISCUSSION

Introduces the concepts, theory and practice of labor-management relations. Topics include the development of the trade union movement; union organizing; the structure, practices and outcomes of collective bargaining; the administration of the collective agreement;

dispute resolution procedures; and the public policy of labor relations. Prerequisite: juniors and seniors only. Staff/Offered periodically

230 MARKETING MANAGEMENT/LECTURE, DISCUSSION

Surveys the role of marketing in business and society. Topics include the marketing environment, marketing research and information systems, consumer behavior, the organizational consumer, products, pricing, distribution, promotion, international service, and nonprofit marketing. Prerequisites: Economics 010, 011; Management 101; juniors and seniors only. Staff/Offered every semester

231 MARKETING RESEARCH/LECTURE, DISCUSSION

Marketing research focuses on consumer behavior and retail advertising. Topics include primary and secondary data collection, questionnaires for attitude and awareness surveys, mail and phone surveys, personal interviews, focus groups, and data-analysis techniques. Prerequisites: Management 230; juniors and seniors only. Staff/Offered periodically

234 CONSUMER BEHAVIOR/LECTURE, DISCUSSION

Examines how people search for, purchase, use, evaluate, and dispose of the products, services, and ideas they expect to satisfy their needs. Emphasizes the issues of market segmentation and the diffusion of innovations. Ethical, legal, and public-policy issues are also discussed. Prerequisites: Management 230; juniors and seniors only. Staff/Offered periodically

240 CORPORATE FINANCE/LECTURE, DISCUSSION

Examines financial decision making by the internal financial manager. A study is made of valuation, cost of capital, capital structure, capital budgeting, and financial analysis. Prerequisites: Economics 010, 011, 160; Mathematics 113 or 120; Management 101; juniors and seniors only. Staff/Offered every semester

242 INVESTMENTS/LECTURE, DISCUSSION

Covers investment principles, market behavior, and investment strategy. Investment principles include portfolio selection, fundamental analy-

sis, portfolio theory, debt instruments and money markets, the stock-option market, and alternative investments. Prerequisites: Management 240; juniors and seniors only. Staff/Offered periodically

250 OPERATIONS MANAGEMENT/LECTURE, DISCUSSION

Provides overview of operations-management systems, emphasizing model building and applications. Topics include forecasting, quality control, inventory management, material requirement planning, machine loading, job sequencing and scheduling, project management and control, decision theory, and linear programming. Prerequisites: Economics 010, 011, 160; Management 101, 104; Mathematics 113 or 120; juniors and seniors only. Staff/Offered every semester

252 CORPORATE ENVIRONMENTAL MANAGEMENT

This course will present many of the issues facing business and industry with relation to the natural environment. Topics such as external competitive pressures, internal strategic planning and positioning, corporate social responsibility, and stakeholder theory will be examined from a corporate environmental perspective. Case study analysis, readings, speakers, videos, and facility tours will be the methods of study. Prerequisite: juniors and seniors only. Staff/Offered periodically

260 BUSINESS POLICY/CASE STUDIES/LECTURE, DISCUSSION

Describes the integration of major management functions (e.g., marketing, finance, and production) in the selection and execution of appropriate strategy. This capstone course must be taken during the senior year. Prerequisites: Management 210, 230, 240, 250; seniors only. Staff/Offered every fall semester

262 BUSINESS ETHICS/CASE STUDIES/LECTURE, DISCUSSION

The social, political, technological and ethical issues confronting modern corporations require contemporary managers to develop a broad knowledge base to deal with complex situations. This course examines the relationship

between organizations and their many stakeholders. Managerial values and ethics are analyzed. Prerequisite: juniors and seniors only. Staff/Offered every year

299 INTERNSHIPS/DIRECTED READINGS

Internships and directed readings, open to juniors and seniors only, are offered to qualified students upon application. They are limited to no more than one course credit each and do not count toward the management major or minor. Students may take no more than two each of such courses in the Management Department. All MGMT 299 courses must be approved by the Graduate School of Management director of program management and planning.

The Master in Business Administration Program

The Clark University M.B.A. program develops competence in basic management functions, skill in managing organizations, and an understanding of the global environment. Each graduate of Clark's M.B.A. program is able to demonstrate:

- competence in the functional areas of management;
- in-depth understanding of one of the functional areas of management, health administration or global business;
- skill in integrating the management functions into an effective organization, and understanding the legal, political, ethical, social, and environmental responsibilities of management;
- appreciation of the global context in which most organizations function; and
- the leadership and communication skills needed to formulate and implement management decisions.

Curriculum

The M.B.A curriculum consists of a combination of seven-week course modules and full-semester, 14-week courses. Modular courses count as 1/2-unit each, while a full semester

course counts as one unit. A total of 16 units are required to complete the degree. Four of the units (seven courses) may be waived if equivalent courses have been completed in an undergraduate program, with a grade of B- or better. A graduate internship is required for all students with less than three years work experience in the United States.

Required Foundation Courses

ECON 4004 Management Economics
(1/2 unit)

STAT 4005 Statistical Methods (1/2 unit,
waivable)

STAT 4006 Management Decision Models
(1/2 unit)

Required Functional Courses

MGMT 4301 Creating Effective
Organizations: Strategic Decision Making
(1 unit)

MGMT 4302 Creating Effective
Organizations: Leadership (1 unit)

ACCT 4100 Foundations of Accounting
(1 unit)

FIN 4201 Financial Management (1/2 unit)

FIN 5301 Stock and Bond Valuation or
FIN 5302 Quantitative Techniques for
Derivatives Valuation (1/2 unit)

MKT 4401 Marketing Management
(1/2 unit)

MKT 4402 Marketing Strategy and
Simulation (1/2 unit)

MIS 4501 Management Information
Systems (1/2 unit)

MIS Seven-week elective (1/2 unit)

OM 4601 Operations Management
(1/2 unit)

Required General Management Courses

MGMT 4305 Career Development
(1/2 unit; required for students who
must complete a graduate internship)

MGMT 4709 Business in Society (1/2 unit)

MGMT 4707 International Management
and Global Competition (1/2 unit)

MGMT 4708 Contemporary Business Law
(1/2 unit)

Capstone (1 unit) (Must be CAP 4808-
Applied Field Project for those in health-
care concentration)

Capstones

In the final stages of the M.B.A. curriculum, each student must complete a course that integrates their academic program and provides a professional, cross-disciplinary, career-building experience. Students have the opportunity to apply their academic skills to the world of practice through courses such as Management Consulting Projects (CAP 5792), Entrepreneurship (CAP 5900), Leadership and Decision Making in Organizations (CAP 5784) and Global Business Seminar (CAP 5783). Students enrolled in the health care-management concentration must take Applied Field Project (CAP 4808) to fulfill the capstone requirement; students in other concentrations choose from capstone options that best complement their selected area of focus.

Concentration and Free Electives

In addition to the courses listed above, students must take three to four units in one area of concentration, plus additional electives in any other area to total 16 units for the entire program. Students may choose from the following areas of concentration:

Accounting

ACCT 5101 Financial Accounting and Reporting I (1 unit)
ACCT 5102 Financial Accounting and Reporting II (1 unit)
ACCT 5103 Management Accounting (1 unit)
ACCT 5104 Accounting Information Systems (1 unit)
ACCT 5105 Financial and Operational Auditing (1 unit)
ACCT 5106 Management Control Systems (1 unit)
ACCT 5107 Analysis of Financial Statements (1 unit)
ACCT 5108 Business Analysis and Valuation (1 unit)

Expanded Accounting Option

The expanded accounting concentration satisfies the 150-hour, postsecondary-education requirement for the Certified Public Accountant (CPA) examination. It also allows students an opportunity to prepare for the Certified Management Accountant (CMA) examination. Students pursuing this option must complete the foundation, functional and general management courses, along with the following six courses:

ACCT 5101 Financial Accounting and Reporting I
ACCT 5102 Financial Accounting and Reporting II
ACCT 5103 Management Accounting
ACCT 5104 Accounting Information Systems
ACCT 5105 Financial and Operational Auditing
FIN 5206 Tax Strategies and Management Decisions

Finance

FIN 5201 Case Studies in Corporate Finance (1 unit)
FIN 5203 Investment Strategies (1 unit)
FIN 5206 Tax Strategies and Management Decisions (1 unit)
FIN 5207 Advanced Derivatives (1 unit)
FIN 5208 Fixed Income Securities (1 unit)
FIN 5281 Case Studies in International Finance (1 unit)
FIN 5301 Stock and Bond Valuation (1/2 unit)
FIN 5302 Quantitative Techniques for Derivatives Valuation (1/2 unit)
FIN 5309 Financial Econometrics (1/2 unit)
FIN 5310 Case Studies in Derivatives (1 unit)
FIN 5311 Portfolio Management (1/2 unit)
FIN 5900 Technical Analysis (1 unit)
FIN 5900 Real Estate Finance (1 unit)
FIN 6000 Financial Institutions (1/2 unit)
ACCT 5107 Analysis of Financial Statements (1 unit)
ACCT 5108 Business Analysis and Valuation (1 unit)

Global Business

- FIN 5281 International Finance
(1 unit, required for concentration)
- MKT 5482 International Marketing
(1 unit, required for concentration)
- MGMT 5407 International Labor
Relations (1/2 unit)
- MGMT 5783 Global Business Seminar
(1 unit)
- MGMT 5900 Global Entrepreneurship
(1 unit)
- MGMT 5900 Doing Business in Northern
Europe (1 unit)
- MGMT 6000 Global Business Teams
(1/2 unit)

Health Care Management

Students concentrating in health-care management must take the following six courses (four units):

- HCM 4800 Health Systems (1 unit)
- HCM 4806 Strategic Management of
Health-Care Organizations (1 unit)
- HCM 4810 Revenue Issues in Health-Care
Organizations (1/2 unit)
- HCM 4811 Management Control in
Health-Care Organizations (1/2 unit)
- HCM 4812 Topics in Institutional
Management (1/2 unit)
- HCM 4813 Topics in Ambulatory-Care
Management

Management

- MGMT 4305 Career Development
(1/2 unit; counts as a MGMT elective if
not required for graduate internship)
- MGMT 4701 Organizational
Communication (1/2 unit)
- MGMT 5401 The Contemporary
Workplace (1/2 unit)
- MGMT 5402 Discrimination in
Employment (1/2 unit)
- MGMT 5304 Negotiation and Conflict
Resolution (1/2 unit)
- MGMT 5305 Industrial Relations
(1/2 unit)
- MGMT 5306 Collective Bargaining
(1/2 unit)
- MGMT 5307 International Labor
Relations (1/2 unit)

- MGMT 5604 Services Management
- MGMT 5783 Global Business Seminar
(1 unit)
- MGMT 5790 New Venture Management
(1 unit)
- MGMT 5792 Management Consulting
Projects (1 unit)
- MGMT 5802 Entrepreneurship (1 unit)
- MGMT 5900 Doing Business in Northern
Europe (1 unit)
- MGMT 6000 Financial Institutions
(1/2 unit)
- MGMT 6000 Learning by Analogy
(1/2 unit)
- MGMT 6000 Managing Change and
Conflict (1/2 unit)
- MGMT 6000 Advanced Topics: Global
and Virtual Teams (1/2 unit)
- OM 5603 Operations Technology
Management (1 unit)

Management Information Systems

- MIS 5601 Database Management Systems
(1/2 unit)
- MIS 5602 Decision Support Systems
(1/2 unit)
- MIS 5503 Telecommunications Systems
(1/2 unit)
- MIS 5504 Software Methodologies (1 unit)
- MIS 5505 Management of Information
Technologies (1 unit)
- MIS 5900 E-commerce (1 unit)
- MIS 5900 Web-site Development (1 unit)

Marketing

- MKT 5401 Marketing Research (1 unit)
- MKT 5402 Consumer and Industrial Buyer
Behavior (1 unit)
- MKT 5403 Advertising and Promotion
(1 unit)
- MKT 5404 Sales and Sales Management
(1 unit)
- MKT 5405 Business to Business Marketing
(1 unit)
- MKT 5406 Market Pricing (1 unit)
- MKT 5407 Services Marketing (1 unit)
- MKT 5482 International Marketing
(1 unit)
- MKT 5494 Product Management (1 unit)

Free Electives

(Count as electives but do not count towards any area of concentration)

COM 4700 Managerial Communications
(1/2 unit)

MGMT 4305 Career Development
(1/2 unit; does not count toward concentration if taken as a requirement for graduate internship)

The Master of Science in Finance Program

The Clark University M.S.F. program is a rigorous curriculum focusing on the skills and knowledge required to apply advanced financial theories to complex financial management problems. To be successful in this program, students need to have strong mathematical skills, along with prior courses in the following areas:

- Financial Accounting
- Economic Theory
- Statistics

Curriculum

The curriculum for the M.S.F. consists of the following courses, totaling 10 units of credit:

- FIN 5301 Stock & Bond Valuation
(1/2 unit)
- FIN 5302 Quantitative Techniques for Derivatives Valuation (1/2 unit)
- FIN 5311 Portfolio Management (1/2 unit)
- FIN 5309 Financial Econometrics
(1/2 unit)
- FIN 5201 Case Studies in Corporate Finance (1 unit)
- FIN 5310 Case Studies in Derivatives (1 unit)
- FIN 5207 Advanced Derivatives (1 unit)
- FIN 5208 Fixed Income Securities (1 unit)
- FIN 5203 Investment Strategies (1 unit)
- FIN 5281 Case Studies in International Finance (1 unit)

Electives: two units of electives in Finance, Accounting or Economics

Full-time and Part-time Options/Class Locations

The M.B.A. and M.S.F. programs are accessible to both full- and part-time students. Clark operates on a semester system. During the fall and spring semesters, classes are held from 9 a.m. until noon and from 1 p.m. until 4 p.m. on the Clark campus. Classes meet from 6 p.m. to 9 p.m. at Clark and in Framingham at the Clark University Graduate Management Center on Route 9. All classes meet once a week, on Monday, Tuesday, Wednesday, or Thursday. Summer sessions are held at both campuses, with classes meeting mid-May to the end of June.

Academic Policies

General Graduation Requirements

Candidates for the M.B.A. degree must complete a total of 16 units of course work as described above. Candidates for the M.S.F. degree must complete the 10 units of course work as described above. Students must pass a minimum of eight units at Clark University Graduate School of Management for the M.B.A. program (excluding MATH 4003), and for the M.S.F. program to meet the residency requirements. Students are usually permitted a maximum of six years from the date of enrollment in the M.B.A. or M.S.F. program to complete all degree requirements. The minimum grade-point average required for graduation is 3.0 (B).

Course Waivers

Course waivers are based on transcript reviews and are granted only for courses taken before the student's graduate matriculation at Clark. A waiver reduces the number of courses the student must take. Typically, a waiver is granted when an entering student presents evidence of having passed an equivalent graduate-level course or baccalaureate course with a grade of B- or better in the relevant subject area within the last six years.

Students applying for waivers should submit a request-for-course-waiver form with their application to the Admissions Office. The

opportunity for waiving courses exists only during a student's first year in the program. Waivers must be approved before the registration deadline. Students should consult the Graduate School of Management catalog for a listing of waivable courses.

Transfer Credit and Residency Requirement

M.B.A. and M.S.F. students may receive transfer credits for no more than two graduate-level courses taken at schools accredited by the AACSB. Usually, transfer credits are assigned only to elective courses. The student must have earned grades of B or better, and the credits from the course(s) must not have applied to another degree. Using transfer credits, students can reduce their degree requirements by two courses. Prior approval, which is granted by the director of program management and planning, is required for transfer credit after the student has matriculated in the M.B.A. or M.S.F. program. Grades from transfer courses are not calculated into a student's Clark grade-point average. Transfer course approval is granted only under certain conditions (a scheduling conflict, a course not available at Clark in a student's final semester, etc.). Regardless of the number of courses transferred or waived, M.B.A. candidates must complete a minimum of eight courses (excluding MATH 4003) taken at Clark to meet Clark's residency requirement. M.S.F. candidates must similarly complete a minimum of eight units to meet residency requirements.

Grade-point Average

Master's degree candidates must maintain a minimum grade-point average of 3.0 to remain in good standing and be eligible for graduation (A = 4.0, B = 3.0, C = 2.0, and F = 0: + or - symbols attached to letter grades increase or decrease them, respectively, by 0.3). Waived courses, incomplete courses and courses taken outside Clark University are not included in computations of grade-point averages.

Grading System

Letter grades are applied as follows:

- A Outstanding
- B Good
- C Marginal Pass
- F Failing

I Incomplete: Incompletes are given at the discretion of the instructor when circumstances beyond the student's control prevent him or her from meeting specific out-of-class course requirements after the 10th scheduled class meeting. Students have 60 days from the date of the last class meeting of the course to make up outstanding course work. Incomplete courses will be converted to failures if not completed within the time period.

W Withdraw: Indicates that the student withdrew from the course. Students may not withdraw after the 10th scheduled class meeting.

Grade Changes

Once grades have been submitted to the registrar, grade changes can be made only if the instructor certifies in writing that the grade to be altered resulted from an error.

Full-time Students

Students must be registered for at least three units in a given semester to be considered a full-time student in the Graduate School of Management.

Review of Graduate Standing

All student academic records are reviewed each semester. Students with cumulative grade-point averages of 3.0 or more are considered to be in good standing. While the grade of C earned in a course is a passing grade, a cumulative grade-point average of B is required for graduation. Any student whose cumulative grade-point average falls below 3.0 is not considered to be performing adequately. Students are placed on academic probation when they have taken four or more units and their cumulative grade-point average falls below 3.0. Students who remain on academic probation

after taking eight units may be dismissed from the Graduate School of Management.

Leave of Absence

Students currently matriculated in the Graduate School of Management may take an official leave of absence for up to one year. Leave is granted by the director of program management and planning on written application by the student. Leaves may be granted for work, health, travel, or personal development reasons.

Courses

(See the Graduate School of Management Catalog for more information.)

ACCT 4100 FOUNDATIONS OF ACCOUNTING

Managers use accounting data to measure and evaluate organizational performance and to make decisions. This course introduces accounting as the language of business by identifying and discussing principles and concepts. Topics include recording process, financial reporting, and the application of accounting information in managerial decision processes. Students are provided opportunities to enhance their analytic skills through practice in compilation, reformulation, and analysis of basic financial data. 14 weeks

ACCT 5101 FINANCIAL ACCOUNTING AND REPORTING I

Accounting issues relevant to commercial organizations are numerous and complex. A set of accounting literature, referred to as Generally Accepted Accounting Principles or GAAP, guides the profession in the resolution of these issues. This course does not attempt to cover all GAAP, but rather provides a foundation for solving practical financial problems by introducing certain topics that are important in understanding the complexities of the business and financial world. The conceptual framework of accounting is discussed and then used as a basis to study accounting literature related to the recognition and measurement of current and noncurrent assets, current and noncurrent liabilities, stockholders' equity, and

the development of income statements and balance sheets. (Prerequisite: ACCT 4100 or its equivalent) 14 weeks

ACCT 5102 FINANCIAL ACCOUNTING AND REPORTING II

A continuation of Financial Accounting and Reporting I, this course addresses accounting literature guiding the profession in such areas as accounting for income taxes, pensions and postretirement benefits, and leases. The treatment of accounting changes and errors, the preparation of the statement of cash flows, and the disclosure required in financial reporting are also discussed. Finally, advanced topics such as business combinations, consolidated financial statements, and accounting for partnerships are addressed. (Prerequisite: ACCT 5101) 14 weeks

ACCT 5103 MANAGEMENT ACCOUNTING

This course covers the collection and analysis of cost data, methods of cost control, and the relevance of various accounting data for managerial decision making in manufacturing and nonmanufacturing organizations. Topics include: activity-based costing and management, standard costing issues, decision making with management accounting data, budget analysis, new cost-management issues, and various cost-control and performance-evaluation issues. (Prerequisite: ACCT 4100) 14 weeks

ACCT 5104 ACCOUNTING INFORMATION SYSTEMS

This course explains the various control and accounting procedures used in collecting, measuring, summarizing, and reporting financial data generated by an organization's operating units. The course emphasizes procedural techniques and studies the flow of financial data through an organization's accounting system. (Prerequisites: ACCT 4100, MIS 4501) 14 weeks

ACCT 5105 FINANCIAL AND OPERATIONAL AUDITING

This course covers fundamental aspects of financial auditing including management's responsibility for financial statements, the legal

liability of auditors, evaluation of internal control structures, substantive tests and tests of systems, and audit reports. Operational auditing and current developments in environmental auditing are also covered. (Prerequisite: ACCT 4100) 14 weeks

ACCT 5106 MANAGEMENT CONTROL SYSTEMS

This course studies organizational planning and control and analyzes the ways in which management accounting practices can aid (and occasionally impede) planning and control processes. Topics include management-control systems, key variables and performance measurements, organizing for control, budget planning, and measuring divisional performance. (Prerequisite: ACCT 4100; MGMT 4301-4304 is recommended) 14 weeks

ACCT 5107 ANALYSIS OF FINANCIAL STATEMENTS

The topics covered in this course are intended to increase skill levels in interpreting financial statements and reports, reconstructing and restructuring financial data, use of analytical techniques for financial-statement analysis, and communicating financial results. (Prerequisite: ACCT 4100) 14 weeks

ACCT 5108 BUSINESS ANALYSIS AND VALUATION

This course examines accounting, finance, business strategy and financial forecasting and valuation concepts. The first part of the course develops methods and techniques, which are later used in the evaluation of equity and debt financing of corporations, analysis of acquisitions and mergers of companies, credit analysis, prediction of financial distress and bankruptcies, evaluation of corporate financial policies, and improvement of communication with investors and creditors of corporations. This case-oriented course emphasizes how to apply accounting, finance and business strategy concepts in practical situations. The course relies heavily on financial information analyses, and will count as an accounting or finance elective in both the M.B.A. and M.S.F. programs. (Prerequisites: at least one accounting and one finance course) 14 weeks

CAD 5783 GLOBAL BUSINESS SEMINAR

See Management 5783.

CAP 5784 LEADERSHIP AND DECISION MAKING IN ORGANIZATIONS

The course offers an opportunity to reflect on how and why organizational leaders make operational or strategic decisions, and on the context in which they are made. Course content includes presentations by executives, regular class sessions, and several papers. All students will choose an aspect of organizational decision making as the focus of their work during the semester. (Prerequisites: required core courses) 14 weeks.

CAP 5792 MANAGEMENT CONSULTING PRACTICES

See Management 5792.

CAP 5900 ENTREPRENEURSHIP

See Management 5900.

COM 4700 MANAGEMENT COMMUNICATIONS

This course is designed to help managers communicate with confidence by showing them how to prepare clear, concise memos, letters, reports, and proposals, as well as how to deliver effective oral presentations. Through active class participation and in-class writing exercises, students develop confidence in their ability to communicate effectively. Seven weeks

ECON 4004 MANAGEMENT ECONOMICS

Managers of organizations—whether for-profit, nonprofit, or government agencies—face a common set of resource-allocation problems. This course will develop a student's ability to formulate and solve these problems, drawing upon the economic theories of consumer demand, the firm and industrial organization as well as mathematical optimization techniques. It will provide a framework for analyzing the flexible multiproduct firm as well as competitive and cooperative business situations from a strategic (game theoretic) perspective. Topics to be surveyed include: demand analysis, production and cost analyses, flexible manufacturing, market structure and strategic behavior,

pricing practices, government regulation, and decision making under uncertainty.

(Prerequisite: MATH 4003 or math entrance requirement fulfilled) Seven weeks

FIN 4201 FINANCIAL MANAGEMENT

This course provides an introduction to financial principles and concepts, such as maximizing firm value, importance of cash flows, time value of money, stock and bond valuation, cost of capital, and investment decisions criteria.

(Prerequisites: ECON 4004, STAT 4006, ACCT 4100) Seven weeks

FIN 5201 CASE STUDIES IN CORPORATE FINANCE

This course extends the discussion from FIN 4201 of the theoretical financial issues facing the corporation. The student is exposed to a more in-depth presentation of the underlying financial theories and gains practice applying these theories to actual problems either through case analyses or additional readings.

(Prerequisite: FIN 4201) 14 weeks

FIN 5203 INVESTMENT STRATEGIES

Topics covered include investment principles, market behaviors, and investment strategies. Students examine the types of risks associated with and the returns available from marketable securities. In addition to studying stocks and bonds, the course provides a risk-return analysis of alternative investment vehicles, such as options and futures. Views of investment professionals are presented to the class live and by video records. (Prerequisite: FIN 4201) 14 weeks

FIN 5206 TAX STRATEGIES AND MANAGEMENT DECISIONS

This course covers the fundamentals of individual and corporate taxation including an analysis of tax policy, structure, legal hierarchy and procedure, as well as a discussion of tax aspects of the various common forms of business organizations, and an examination of tax considerations in implementing employee benefit plans. The basic foundations of international tax are addressed. Cases emphasize the necessity of considering the impact of federal taxes in man-

agement decisions. Students perform a tax compliance and planning project. 14 weeks

FIN 5207 ADVANCED DERIVATIVES

Although the quantity and complexity of derivative securities has exploded in recent years, there are basic mathematical tools that can be used to accurately place a value on any derivative, no matter how complex. This course focuses on learning these tools and understanding how they are applied to standard derivatives such as futures, options and swaps. The course will also focus on applying these tools to current financial engineering problems. (Prerequisite: FIN 5302) 14 weeks

FIN 5208 FIXED INCOME SECURITIES

This course examines fixed-income securities like U.S. Treasury bills, notes, bonds, corporate bonds and mortgages and then analyzes some of the derivatives based upon these securities. The theory of valuation for fixed-income securities is presented along with models of the term structure of interest rates. Much of the course is devoted to using personal computers to model the term structure as a basis for valuation. (Prerequisite: FIN 5302) 14 weeks

FIN 5281 CASE STUDIES IN INTERNATIONAL FINANCE

The focus is on specific problems encountered by financial managers in corporations having international financial functions. Although international capital budgeting and financing in a global environment are covered, the major emphasis is on managing foreign exchange risk. (Prerequisite: FIN 4201) 14 weeks

FIN 5301 STOCK AND BOND VALUATION

This course provides an introduction to investment theory and security valuation. Surveys techniques for stock and bond valuation, including dividend discount models, capital-asset pricing models, multiple-stage growth, and term structure models. (Prerequisite: FIN 4201) Seven weeks

FIN 5302 QUANTITATIVE TECHNIQUES FOR DERIVATIVES VALUATION

This course focuses on methods of pricing options, futures contracts, forward contracts, and swaps. Models include the binomial and Black-Scholes models for options and arbitrage-free models for forwards, futures, and swaps. (Prerequisite: FIN 4201) Seven weeks

FIN 5309 FINANCIAL ECONOMETRICS

This course provides a survey of common statistical techniques employed in financial research, including linear regression, factor models, time series models, and forecasting models. (Prerequisite: FIN 4201) Seven weeks

FIN 5310 CASE STUDIES IN DERIVATIVES

The goal of this course is a thorough exploration of the risk-management process. This decision involves identifying and quantifying the risk to be transferred, selecting the means of transferring the risk, and implementing the risk-management decision. Risk management is only partly a quantitative field. Strategy, negotiation, marketing, and basic financial management are important as well. This course will focus on several important areas: (1) understanding the players in the market for financial risk; the buyers and sellers of risk, and the various intermediaries and (2) making a risk-management decision with only limited information about the true risks a firm faces. (Prerequisite: FIN 5302) 14 weeks

FIN 5311 PORTFOLIO MANAGEMENT

This course covers such topics as passive- and active-portfolio management, performance measurement, descriptions of investment companies, and diversification to include international investments and nonfinancial assets. (Prerequisite: FIN 5301 is recommended) Seven weeks

FIN 5900 TECHNICAL ANALYSIS

The focus of this course is how investors might use past market data to forecast future asset prices. This methodology is opposed to fundamental analysis, which depends on past accounting data for predictions of future prices.

The class will examine popular methods of technical analysis and try to forecast prices using these methods on actual data.

Speculative trading techniques such as entering trades via various types of orders, protecting by stop-loss orders, and pyramiding of positions will be presented. The course will discuss the fit of technical analysis into the efficient markets hypothesis and into current finance theory. This course is offered as a special topics class and counts as a finance elective in both the M.B.A. and M.S.F. programs. (Prerequisite: FIN 4201) Seven weeks

FIN 6000/MGMT 6000 FINANCIAL INSTITUTIONS

This course provides an understanding of financial institutions and of the effects of the regulatory and tax environments on the operation of these institutions. The special requirements of financial intermediaries are examined in relation to market participants such as investors and corporations. (Prerequisite: FIN 4201) Seven weeks

HCM 4800 HEALTH SYSTEMS

This course should be one of the first taken in the health-care concentration because it provides a framework that enables the student to see the contributions that the other required courses make to health-system management. Initially, this course examines various input-through put-output models of health systems and discusses the information necessary to understand the variety of components and links. It then uses the systems approach to identify key issues in various health-service sectors: for example, primary care, hospital services, and high-technology services. Discussions and student papers focus on key issues related to health systems in the United States and other countries. 14 weeks

HCM 4806 STRATEGIC MANAGEMENT OF HEALTH CARE ORGANIZATIONS

Integrates different facets of the curriculum by exploring the relationship between the context, content, and process of decision making in health-services organizations. We take into consideration the social role of health-services

organizations, the expectations and power of internal and external stakeholders, the influence of decision makers' perceptions, values, and goals, and the applicability of practices from private industry to the health-services sector. Cases, readings, and class discussions integrate the complexities of management and leadership in health-services organizations. Prerequisites: MGMT 4301, MGMT 4302, MKT 4401 and either HCM 4811 or FIN 4201. Required for health-care concentrators; can be used as an elective course for all others. 14 weeks.

HCM 4810 REVENUE ISSUES IN HEALTH CARE ORGANIZATIONS

Reviews reimbursement methods for hospitals, physicians, nursing homes, and home health care agencies. We identify the economic incentives for providers and the behavioral and ethical issues associated with different reimbursement methods and with managing the revenue stream. We also study managed-care arrangements and the development of capitation rates and discuss allocation of global payments across providers in integrated health systems. Lastly, we look at sources of funds unique to not-for-profit organizations: fund raising and tax-exempt bonds. Prerequisite: ACCT 4100. Required for the health-care concentrators and can be used as an elective course for all others. Seven weeks

HCM 4811 MANAGEMENT CONTROL IN HEALTH-CARE ORGANIZATIONS

Applies management-control tools in hospitals, neighborhood health centers, home health agencies, nursing homes, physician offices, and integrated health systems. The tools we use include budgeting, cost allocations, break-even analysis, performance measures, and variance analysis. The cases, readings, and class discussions also explore the interactions between management control, the behavior of organization members and the expectations of external stakeholders. Prerequisite: ACCT 4100. Required for health-care concentrators; can be used as an elective course for all others. Seven weeks

HCM 4812 TOPICS IN INSTITUTIONAL MANAGEMENT

Focuses on the management of hospitals and nursing homes. It is aimed at individuals without significant management experience in health care, providing a view of governance and internal operations, and exploring the interactions between client expectations, management's role, and the professional staff in these organizations. Case discussions, readings, and site visits integrate management techniques, theoretical reflections, and health-policy issues. Prerequisite: MGMT 4301 and MGMT 4302. Required for health-care concentrators; can be used as an elective course for all others. Seven weeks

HCM 4813 TOPICS IN AMBULATORY CARE MANAGEMENT

Focuses on the management of clinics, physician offices, assisted-living facilities, and home health-care organizations (including hospice). It is aimed at individuals without significant management experience in health care, exploring client expectations and the interactions between management and clinical and support staffs in each setting. Case discussions, readings, and site visits integrate management techniques, theoretical reflections, and health-policy issues. Prerequisites: MGMT 4301 and MGMT 4302. Required for health-care concentrators; can be used as an elective course for all others. Seven weeks

MATH 4000 MATHEMATICS FOR MANAGERS

A basic level of mathematical competence is required in many of the courses offered by the Graduate School of Management. MATH 4000 is designed for students whose skill in mathematics falls below that level. Course coverage includes: understanding the basics of algebra, generating and solving simple equations and sets of equations, graphical functions, and translating business problems into mathematical notation. Business applications of mathematical techniques are emphasized throughout the course. Satisfies the mathematics admissions requirement only and can-

not be taken as part of the 16-unit M.B.A. program. 14 weeks

MGMT 4301 CREATING EFFECTIVE ORGANIZATIONS: STRATEGIC DECISION MAKING

CEO: Strategic Decision Making focuses on the formulation and implementation of strategy at both the business and corporate level. Using an integrative approach that combines both the science and the art of strategy, the course introduces students (1) to the tools that are used to assess an organization's internal and external environment; and (2) to the process of strategic thinking. 14 weeks.

MGMT 4302 CREATING EFFECTIVE ORGANIZATIONS: LEADERSHIP

This course is designed to provide students with the knowledge, skills, and abilities needed to exercise leadership in today's global organizations. Students will gain the tools needed to lead organizational members towards the attainment of individual, team, and organizational goals. Topics include establishing effective interpersonal relationships, managing cultural differences, motivating others, building and maintaining effective teams, exercising leadership and influence, creating effective organizational structures and processes, and managing change. Course readings and highly interactive classroom activities (case studies and exercises) will be used to enhance students' leadership skills. 14 weeks

MGMT 4305 CAREER DEVELOPMENT

Skillful career management is vital to both professional success and personal satisfaction. This course helps students develop career management skills that are appropriate to any level of career development, from making initial career decisions to later career changes. Self-assessment instruments, exercises, and cases are used throughout the course. Topics include self-assessment, career decision making, job-search strategies, organizational assessment, and socialization processes. Required for all students who must complete a graduate internship. Students who waive the internship requirement may take this course for elective credit. Seven weeks

MGMT 4701 ORGANIZATIONAL COMMUNICATION

This course is designed to increase students' knowledge of the theory and practice of communication in organizations. Topics include interpersonal communication issues, including the effects of culture, status, and gender, and organizational issues such as crisis communication and public relations. Much of the course is devoted to skill development, emphasizing both written and oral presentations. Seven weeks

MGMT 4706 BUSINESS POLICY

This course focuses on the organizational processes for selecting and executing an appropriate competitive strategy. The course objectives are to develop skills for evaluating the impact of internal and external forces on an organization's strategic choices, to enhance understanding of unstructured decisions, to understand the relationship between corporate cultures and competitive strategies, and to assess the nature and importance of global strategies. Students who must complete MGMT 4301 and MGMT 4302 series should not take this course. (Prerequisites: FIN 4201, MKT 4401, OM 4601) 14 weeks

MGMT 4707 INTERNATIONAL MANAGEMENT AND GLOBAL COMPETITION

This course addresses core management issues from the international perspective. Business policy, competitive strategy, organizational and control mechanisms, business modes, and operations are thus covered from the perspective of global business. Geographic diversity and geographical influences are at the heart of the global economy. The diverse cultural, economic, and political environments facing the business manager are unique dimensions that make up the foundation of the new course. (Prerequisites: ECON 4004, MGMT 4301) Seven weeks

MGMT 4708 BUSINESS LAW

This course provides complete coverage of business law with a focus on contemporary, ethical, international and technology issues.

This course recognizes the importance of the application of court decisions, statutes and government regulation to business and making business decisions in a global market. Seven weeks

MGMT 4709 BUSINESS IN SOCIETY

This course combines the study of business ethics with the consideration of business in its social, technological, political, and natural environments. Personal values and their function in organizational settings are the focus of the first half of the course, while the second half examines corporate responsibility and stakeholder management in the international context. The emphasis throughout is on creative managerial decision making, with analytic and implementation skills developed through case discussion, case writing, and class presentations. Seven weeks

MGMT 5304 NEGOTIATION AND CONFLICT RESOLUTION

This skill-building course is designed to help students improve their negotiation and dispute-resolution techniques. Students will study the psychological concepts and theories of negotiation. They will also explore their own personal negotiation and conflict-resolution styles. The course relies heavily on the use of role-playing exercises, case studies and class discussions. Topics studied will include distributive and integrative bargaining, communication and persuasion, power, conflict and intergroup/international negotiation. (Prerequisite: MGMT 4302) Seven weeks

MGMT 5305 INDUSTRIAL RELATIONS

Broadly defined, industrial relations refers to the relationships between employees and employers, through union representatives. This course serves as an introduction to the concepts, theories, and practice of labor-management relations. Topics include: the development of the trade-union movement; union structure, government and growth; the practice of collective bargaining; the administration of the collective-bargaining agreement; dispute-resolution procedures; and the legal framework of labor relations. Seven weeks

MGMT 5306 DIVERSITY IN THE WORKPLACE

The race and gender composition of the U.S. workforce has become increasingly diverse in recent years. Drawing on research in organizational behavior, psychology, and sociology, this course explores the complex dynamics that underlie interpersonal interactions in diverse organizations. Students will examine the past and present experiences of members of different race and gender groups in the U.S. workplace. Finally, students will consider how organizations can manage diversity in a manner that fully utilizes the talents of all members of the workforce. Male and female students of all racial/ethnic backgrounds are encouraged to enroll. Seven weeks

MGMT 5308 CONSULTING STRATEGIES AND SKILLS

Consultants are often employed by management to analyze and resolve continuing organizational problems. This course takes a practical approach to learning about the consultant's role through the use of cases and consulting projects. Topics covered include problem definition and contracting, organizational diagnosis and change management, the management of consulting relationships, and the consultant's use of self. (Prerequisite: MGMT 4301, MGMT 4302) 14 weeks

MGMT 5401 THE CONTEMPORARY WORKPLACE

This course examines contemporary issues in employment. Topics include downsizing the workforce, discrimination in selection and employment, sexual harassment, employee rights and responsibilities, the employment of part-time, temporary and home workers, new forms of compensation, the frontiers of union organizing, and human-resource management in the global economy. Through the discussion of selected readings and cases as well as class debates, students develop an appreciation of the complexity and importance of these and other emerging issues. Seven weeks

MGMT 5402 DISCRIMINATION IN EMPLOYMENT

This course examines inappropriate and illegal discrimination in the contemporary workforce. Topics include discrimination in recruitment, selection and promotion, sexual harassment, the glass-ceiling effect, and discrimination in compensation. Through the discussion of selected readings and cases as well as class debates, students develop an appreciation of the complexity and importance of these and other emerging issues. Seven weeks

MGMT 5406 COLLECTIVE BARGAINING

Collective bargaining is a process by which representatives of labor and management seek agreement on the terms and conditions of employment. The public often has a vested interest in the process, especially when conflicts over terms of employment cannot be resolved at the bargaining table. Topics covered include the evolution of bargaining, theories of bargaining power and behavior, and the impact of the law on the conduct and substance of bargaining. The range of bargaining issues is described, along with variations in bargaining structures. The grievance procedure is examined with respect to the application and interpretation of collective agreements.

Students participate in a negotiation simulation and a collective-bargaining simulation. Seven weeks

MGMT 5407 INTERNATIONAL LABOR RELATIONS

This course provides an international perspective on labor relations by comparing labor-union activities, nonunion forms of worker representation, and labor legislation in several countries. Topics include collective bargaining and wage determination, union growth, labor disputes, protection against unfair dismissal, grievance procedures, and employee participation in management decision making. National trends are examined and compared through readings, case studies, and presentations.

(Prerequisite: MGMT 4301, MGMT 4302)

Seven weeks

MGMT 5604/OM 5604 SERVICES MANAGEMENT

This course provides students with the concepts and tools necessary to manage service operations effectively. The strategic focus should also provide students with the foundation to start their own service business. The course explores the dimensions of successful service firms, prepares students for enlightened management, and suggests creative entrepreneurial opportunities. Beginning with the service encounter, service managers must blend marketing, technology, people, and information to achieve a distinctive competitive advantage. This course looks at service management from an integrated viewpoint with a focus on customer satisfaction. The material will integrate operations, marketing, strategy, technology, and organizational issues.

MGMT 5783/CAP 5783 GLOBAL BUSINESS SEMINAR

An intensive course, Global Business Seminar combines lectures, readings and discussion at Clark University with a week of instruction by Clark faculty and resident business executives and guest lecturers in a foreign capital city. Current global business events are examined in the context of economic and political policy and management experience. Several class sessions are held on campus, followed by a week of seminars and field trips in a foreign center of commerce. (Prerequisites: required core courses) 14 weeks

MGMT 5792/CAP 5792 MANAGEMENT CONSULTING PROJECTS

This course is organized around projects provided by a variety of profit and nonprofit organizations in central Massachusetts and Boston. Teams of three to four second-year M.B.A. students are invited to work in these organizations as consultants in training. Working with guidance from Clark faculty members and managers from the host organizations, the student teams analyze their assigned projects and recommend courses of action. Management, in turn, critically evaluates and responds to the students' analysis and recommendations, in much the

same manner that they respond to proposals from their own staff. (Prerequisites: required core courses) 14 weeks

MGMT 5793 STRATEGIC MANAGEMENT OF TECHNOLOGY

This course focuses on the technology dimension of competitive strategies and strategy-making processes. Through cases and readings, strategic-management concepts are used to analyze those critical points where technology intersects other processes and functions of the business firm. The perspective taken is that of the nontechnically trained manager dealing with technology issues of strategic importance to the firm. (Prerequisites: FIN 4201, MGMT 4301-4304, OM 4601) 14 weeks

MGMT 5802/CAP 5802 ENTREPRENEURSHIP

This course is aimed at providing individuals with the concepts and skills to recognize opportunities that others have overlooked, and to have the insight and knowledge to act where others have hesitated. The course is a product of experience—nearly two decades of research in this field and refinement in the classroom—and is rooted in real-world application.

Major areas of concentration will include: opportunity identification and evaluation, forming the entrepreneurial team, managing resources, developing a business plan, financing the business, and assessing entrepreneurship from a personal perspective. (Prerequisites: required core courses) 14 weeks

MGMT 5900 GLOBAL ENTREPRENEURSHIP

Entrepreneurial opportunities in international markets have exceptional possibilities. However, in these uncertain economic times, the potential risks are also significant. This course explores these entrepreneurial opportunities from a global perspective. The students will divide into teams and develop a feasibility study for starting a moderate-size venture in an international environment. The teams will work together and research the essential components of a feasibility study through traditional research, Internet research, e-mail correspondence, and, when possible, meet with

appropriate counselor representatives. The students will also analyze written international case studies, give several brief presentations, and present the final feasibility analysis as the term project. This course is offered as a special topics class. (Prerequisites: FIN 4201, MKT 4401, and MGMT 4301, MGMT 4302) 14 weeks

MGMT 5900 SPIRITUALITY AND BUSINESS

There has been a recent explosion of books, tapes, and videos on the topic of spirituality and business. At their roots are the beliefs that: (1) everyone is spiritual for we are composed of mind, body and spirit; (2) everyday business life has gone stale for many people because their spirit is not engaged in what they do; and (3) engaging our spirit at work will improve our relationship to what we do and to each other, and ultimately, will improve the bottom line. The course explores this concept through readings and discussions of spirituality in the context of the individual, work group, and organization. It is different than other courses in that we will engage in spiritual, nonsectarian practices and rituals during class sessions. There are no prerequisites for this class other than an open mind. This course is offered as a special topics class and counts as a free elective in the M.B.A. program. 14 weeks

MGMT 6000 ADVANCED TOPICS: GLOBAL AND VIRTUAL TEAMS

Advanced Topics in Teams explores the intriguing and challenging issues surrounding the use of teams in today's global organizations. This elective course goes beyond the introductory material covered in the managing-teams module of Creating Effective Organizations (CEO). It focuses on the challenges faced by global teams comprised of members from different regions of the world, as well as by virtual teams that rely primarily on electronic rather than face-to-face interaction. The course is designed to give you the skills needed to build and maintain effective global/virtual teams. Course topics include designing global/virtual teams, managing interpersonal processes and

conflict within global/virtual teams, and using technology to enhance team performance. Class meetings will be highly interactive; activities will include case discussions and two virtual (electronic) team exercises. The course is included in the Global Business Concentration. (Prerequisite: MGMT 4302) Seven weeks

MGMT 6000 MANAGING CHANGE AND CONFLICT

Change and conflict are inevitable, as organizations enter the 21st century and face globalization, technological innovation, and demographic change. This course will address the challenge of managing conflict and change from a pragmatic perspective. Formal organization development interventions will be discussed, as well as the day-to-day changes that every manager experiences. Concepts such as employee involvement, organization culture, power and politics, and the learning organization will be introduced and applied. Course requirements include planning an actual organizational change, oral and written case analyses, and active participation. (Prerequisite: MGMT 4301, MGMT 4302) Seven weeks

MGMT 6000 LEARNING BY ANALOGY

This course will use a variety of mediums (movies, art, literature, nature, poetry, and music, among others) to explore management concepts. Students will be required to make presentations in each class session using the assigned medium as a basis for examining how organizations and the people in them function. The course focuses on developing an ability to think creatively about management, and to draw lessons from multiple venues. (Prerequisite: MGMT 4301, MGMT 4302) Seven weeks

MKT 4401 MARKETING MANAGEMENT

This course provides the fundamental marketing principles and practices underlying a successful business enterprise. Students will learn the tools, concepts, analytical frameworks, and skills for making marketing decisions and designing marketing programs. The course cov-

ers the processes and activities involved in effective marketing, as well as the strategic implications of being market driven. A fundamental goal of the course is to improve students' critical thinking and decision-making skills by requiring students to make and defend marketing decision in the context of realistic, case-oriented problem situations. Topics include: segmentation, targeting, positioning, competitive strategy, product development, pricing, promotion, and distribution. (Prerequisites: ECON 4004, STAT 4006) Seven weeks

MKT 4402 MARKETING STRATEGY AND SIMULATION

This course utilizes a computer simulation to provide direct, hands-on experience of managing a business. In applying concepts and strategies learned in MKT 4401 to a practical, real-world environment, students will come to appreciate the importance and value of marketing as the primary competitive tool and will gain direct exposure to the opportunities, challenges, problems and decisions involved in market-driven management. They will also learn the importance of making trade-offs in finding the optimal combination of marketing mix elements (and product/inventory decision) necessary to run a successful business enterprise. Experiential learning from the competitive game may be supplemented by case discussions and readings on competitive marketing strategy development. (Prerequisite: MKT 4401) Seven weeks

MKT 5401 MARKETING RESEARCH

This course examines the basic concepts and techniques used in marketing research as a problem-solving aid in decision making in marketing. Problem definition, research design, types of information and measurement scales, and evaluation and utilization of secondary data with emphasis on electronic access are discussed. Students are trained in the basic methods of primary data collection, including structured and unstructured interviews, focus groups and surveys. Practical and intensive

applications on sample size, questionnaire design, data analyses, and interpretation are emphasized, as well as discussion of advanced multivariate techniques for inputting and analyzing data using the SPSS statistical package. (Prerequisite: MKT 4401, STAT 4006)
14 weeks

MKT 5402 CONSUMER AND INDUSTRIAL BUYER BEHAVIOR

Understanding consumer behavior is essential to defining and maintaining a market. This course examines the purchasing behavior of individuals and groups. Topics include: complex decision-making models, buying habits, attitude theory, and the buying behavior of organizations. (Prerequisite: MKT 4401)
14 weeks

MKT 5403 ADVERTISING AND PROMOTION

Promotion, a component of the marketing mix, is any form of communication intended to inform, persuade, or remind people of products or services. Advertising is any form of impersonal communication of ideas, goods, or services paid for by an identified sponsor and is one of the major types of promotion. The course focuses on advertising and publicity as the most common and useful forms of promotion. The course integrates international, legal, and ethical aspects of promotion and covers topics such as media selection, public relations, and personal selling. (Prerequisite: MKT 4401)
14 weeks

MKT 5404 SALES AND SALES MANAGEMENT

Sales management integrates personal selling and marketing management, with emphasis on relationship selling. The course focuses primarily on industrial rather than retail sales. Topics include techniques of personal selling; recruiting, training, organizing and motivating the sales force; compensation; forecasting; budgeting; and control. Legal and ethical issues are discussed. (Prerequisite: MKT 4401) 14 weeks

MKT 5405 BUSINESS-TO-BUSINESS MARKETING

Organizations that market to other organizations encounter different problems than those that market to consumers. Business-to-business

marketing is the marketing of goods and services to commercial enterprises, governments, and nonprofit institutions. Emphasis is on the buyer behavior and the more complex decision-making processes of organizations. Topics covered include industrial market segmentation, product development, pricing, personal selling, promotion, and distribution. Additional topics are direct marketing, research and development, purchasing, and corporate planning. (Prerequisite: MKT 4401) 14 weeks

MKT 5406 MARKET PRICING

A pricing strategy should be consistent with and reflect overall company objectives. Companies can use pricing strategies to gain market share, meet profit goals, or maintain the status quo. Companies may pursue more than one pricing objective at the same time and often re-examine pricing strategy in light of changes in the competitive environment. This course presents a management approach to pricing products and services in consumer, industrial, and reseller markets. Topics include: bargaining tactics, bidding strategies, pricing product lines for complex channels of distribution, life cycle and learning-curve pricing, and intrafirm transfer pricing. (Prerequisite: MKT 4401) 14 weeks

MKT 5407 SERVICES MARKETING

Highly competitive markets for profit and nonprofit service organizations require strict attention to the production/marketing interface, as well as to the traditional marketing mix. The course focuses on the marketing implications of service intangibility, the inseparability of production and consumption, and conflicting server roles. These problems apply to a wide array of service organizations, including retailing and health care. Current models of the service organization are presented with insight developed through readings, cases, and interviews. (Prerequisite: MKT 4401) 14 weeks

MKT 5482 INTERNATIONAL MARKETING

This course examines the problems that firms encounter as they enter international markets. The text and readings explore marketing prob-

lems facing joint venture and multinational firms, as well as the exporter and licensor. A range of marketing activities is covered in the context of international operations, including marketing research, product policy, pricing, distribution, promotion, planning, organization, and control. (Prerequisites: MKT 4401; MGMT 4707) 14 weeks

MIS 4501 MANAGEMENT INFORMATION SYSTEMS

One of the most important aspects of computing, management information systems has had a significant effect on both operations and strategy. Information systems are employed at all levels of management to achieve competitive advantage and to create new opportunities, products, and services. The objective of this course is to provide basic knowledge of the field of information systems. Topics include hardware, software, database management, data communication, systems analysis and design, and functional application areas such as medicine, accounting, and manufacturing. Seven weeks

MIS 5503 TELECOMMUNICATION SYSTEMS

Telecommunication technologies have made a lasting impact on the manner in which information is transmitted within and among organizations. This course provides students with a working knowledge of the technical and managerial aspects of communication systems. On completion of the course, students will be able to analyze the types and components of communication systems, and make an extensive comparison of the different types. (Prerequisite: MIS 4501) Seven weeks

MIS 5504 SOFTWARE METHODOLOGIES

Programming methods used in the development of Information Systems (IS) software range from third-generation to the more recent object-oriented ones. This course examines the methodologies that are periodically in use, with the aim of imparting to students the ability to select the one that best suits the requirements of a particular IS. Topics include visual, object-oriented, client-server and Internet programming. (Prerequisite: MIS 4501) 14 weeks

MIS 5505 MANAGEMENT OF INFORMATION TECHNOLOGIES

To effectively plan the Information Technology (IT) needs of an organization, managers must assess the impact of IT and the role it plays in the context of organizational strengths and goals. Through the use of case studies, this course is designed to provide students the insight required to make such appraisals. (Prerequisite: MIS 4501) 14 weeks

MIS 5513 DATA SECURITY AND PRIVACY

Begins with an introduction to the basic concepts of data security both physical and logical. It continues with dealing with data security standards, the SSL and S-HTTP protocols, data integrity; data encryption; coding methods; the use of smart cards; assurances of financial transactions, payment methods of e-business and e-commerce; medical information security; and legal aspects of information security. (Prerequisite: MIS 4501) 14 weeks

MIS 5523 OPERATING SYSTEMS

Developed as an introduction to operating systems' characteristics, designs and structures. Topics include a history of operating systems, concurrent processes and synchronization, coordination or asynchronous events, file systems, scheduling, deadlock resolution and memory management. (Prerequisite: MIS 4501) 14 weeks

MIS 5533 DESIGN AND ANALYSIS OF COMPUTER NETWORKS

Designed as an overview of LAN/WAN; encoding digital and analog signals, asynchronous/synchronous protocols; ISDN, B-ISDN, TCP/IP, with a focus on modeling and analysis of networks and network protocols. (Prerequisite: MIS 4501) 14 weeks

MIS 5543 PROJECT MANAGEMENT

Analyzes the most important aspects of project management within the framework of organizational behavior and structure that can determine project management. Students will be required to learn to use Microsoft Project 2000, including planning a project, creating project schedules, communication, project informa-

tion, using the critical path, assigning resources, tracking progress, and sharing information across applications and the Web. Access to Microsoft Project 2000 software required. (Prerequisite: MIS 4501) 14 weeks

MIS 5553 INFORMATION SYSTEMS ANALYSIS AND DESIGN

Surveys the methods of IS analysis and design for enterprises with data-processing capabilities. The focus will be on how to determine feasibility and system requirements, organizational and procedural requirements and how to best utilize database capabilities. Special emphasis will be given to user groups, such as how to develop a user profile; how to improve human/computer interaction. (Prerequisite: MIS 4501) 14 weeks

MIS 5601 DATABASE MANAGEMENT SYSTEMS

Database management systems play an important role in meeting the information needs of an organization. A poorly designed database may result in providing incomplete, wrong, and anomalous information. The primary objective of this course is to study the techniques used in designing databases that provide the correct information to nontechnically oriented users. Other topics include distributed databases and expert systems. (Prerequisite: MIS 4501) Seven weeks

MIS 5602 DECISION SUPPORT SYSTEMS

Optimization modeling techniques can potentially be used to address a wide range of management problems. Application of these techniques in today's business environment requires robust, microcomputer-based software to solve the models. In this course, students learn various optimization modeling techniques; software for solving models; and cases of how companies have developed and used optimization-based decision support systems to address real-world problems. (Prerequisite: OM 4601) Seven weeks

MIS 5606 DIGITAL BUSINESS

While digital Business includes the buying and selling of goods and services on the Internet/WWW, it also involves the internal

use of digital technology in new ways to improve business processes. This class is an introduction to Digital Business, including a balanced coverage of technical and business topics. Case studies and business examples complement conceptual coverage to provide real-world context. This course will prepare the student to understand how an organization can become more effective. Students will develop their own Web pages to demonstrate course material. This course is offered as a special-topics class and will count as an elective in the MIS concentration. (Prerequisite: MIS 4501 or MIS 4500) Seven weeks

MIS 5900 WEB-SITE DEVELOPMENT

This course covers all aspects of Web-site design, from creative design to professional management. Electronic commerce issues will be looked at in-depth. Students will work with and learn HTML and Java Scripting, including the introductory components of CGI and Web Site Pro server hosting software. Students taking this class will need to have Web-server access with a minimum of 2 MB hosting space available through their ISP and should be familiar with personal computers. All work will be done using the Windows 95/98 operating systems. This course is offered as a special-topics class and will count as an elective in the MIS concentration. (Prerequisite: MIS 4501) 14 weeks

OM 4601 OPERATIONS MANAGEMENT

Operations management involves the efficient use of resources to create goods or services that satisfy the needs of customers and clients. In both the profit and nonprofit sectors, successful management requires economically rational decisions regarding the design and operation of processes that transform such resources into goods or services. The course develops students' abilities to identify and structure operating problems and to identify appropriate techniques for resolving them. Examples of topics covered include: modeling concepts and LP modeling/solution methods, basic forecasting methods, location selection, inventory man-

agement, MRP, JIT, quality management/assurance, project management and control.

(Prerequisites: MATH 4000 or math entrance requirement fulfilled, STAT 4006, MIS 4501)
Seven weeks

OM 5601 OPTIMIZATION FOR MANAGERS

This course provides an overview of important, practical tools that have been used to solve management problems. Explanation of the fundamental ideas behind these techniques will help students to apply them intelligently and flexibly to situations in the real world.

Examples of the techniques are heuristics, simulation, shortest path, network models, dynamic programming, and so on. Thanks to desktop computers and user-friendly software, managers can now use these techniques themselves, a particularly attractive feature for small entrepreneurial firms. (Prerequisite: OM 4601)

14 weeks

OM 5602 APPLIED BUSINESS FORECASTING

Accurate forecasts of sales revenues, quantities sold, prices, production capacity, market size and share, inventory levels, personnel requirements, and many other business measures are important for making good management decisions. Applied forecasting projects are drawn from marketing, finance, economics, organizational behavior, strategy, and operations management to illustrate methodologies. Forecast projects are drawn from current local businesses or a special field of interest. Topics include forecasting with simple and multiple regression, time series analysis including classical and ARIMA methods, and exponential smoothing models. (Prerequisite: STAT 4006) 14 weeks

OM 5603 OPERATIONS TECHNOLOGY MANAGEMENT

To compete in the growing international marketplace, firms must be able to compete on the basis of manufacturing costs, productivity, and product quality. Production managers face complex decisions as they try to balance productivity and quality against cost. This course

compares traditional manufacturing methods and emerging trends such as Just-in-time, Flexible Manufacturing Systems, Total Quality Management, and Computer Integrated Manufacturing. (Prerequisite: OM 4601)
14 weeks

OM 5604/MGMT 5604 SERVICES MANAGEMENT

This course provides students with the concepts and tools necessary to manage service operations effectively. The strategic focus should also provide students with the foundation to start their own service business. The course explores the dimensions of successful service firms, prepares students for enlightened management, and suggests creative entrepreneurial opportunities. Beginning with the service encounter, service managers must blend marketing, technology, people, and information to achieve a distinctive competitive advantage. This course looks at service management from an integrated viewpoint with a focus on customer satisfaction. The material will integrate operations, marketing, strategy, technology, and organizational issues.

(Prerequisite: OM 4601) 14 weeks

STAT 4005 STATISTICAL METHODS

This is a first course in applied statistics. No prior knowledge of statistics is assumed. The course is divided into two sections. The first section covers the basics of data analysis and presentation, probability theory, and applied probability. The second section covers confidence tests and statistical regression. There are exams after each section. (Prerequisite: MATH 4003 or math entrance requirement fulfilled)
Seven weeks

STAT 4006 MANAGEMENT DECISION MODELS

This course focuses on model building using multiple regression analysis. The resulting models are used to aid management decision making. Exercises and cases involve a wide range of management problems. (Prerequisite: STAT 4005) Seven weeks

Directed Research

A student may take up to two courses in which he or she performs independent research on a selected topic under the guidance of a faculty sponsor who is expert in the area. Once the sponsor and the director of program management and planning approve a directed research project, the student will work independently to achieve the goals established. Directed research may fulfill a requirement for a concentration.

Special Topics

Special topics are offered when an area of interest to faculty and students requires a more in-depth treatment than that given in the regularly scheduled classes because of new developments in business research or practice. Special topics are often offered for more than one semester, and may be added to the regular catalog of courses, depending on the nature of the topic.

MATHEMATICS

Department Faculty

Lawrence E. Morris, Ph.D., chair:

automorphic representations, algebraic geometry

Laura T. Bernhofen, Ph.D.: *statistics, ranking and selection*

Jerry Breecher, Ph.D.: *performance evaluation*

Arthur Chou, Ph.D.: *complexity theory, algorithms*

Frederic Green, Ph.D.: *computational complexity, theory of computation, quantum computing*

Li Han, Ph.D.: *computer simulation, software engineering, robotics, computer animation*

David Joyce, Ph.D.: *knot theory, computer science, combinatorics, history of mathematics*

John F. Kennison, Ph.D.: *topology, category theory*

Lee Rudolph, Ph.D.: *knot theory, low-dimensional topology, algebraic geometry, visualization*

Natalia Sternberg, Ph.D.: *applied mathematics, differential equations, scientific computing*

Undergraduate Programs

The department supports undergraduate majors and minors in computer science and in mathematics. The computer science program is described in the computer-science portion of this catalog. The department also offers courses that play an important role in other disciplines.

The Mathematics Major

In keeping with liberal-arts traditions, Clark's mathematics major provides a solid education in mathematical principles for students who wish to apply mathematics in other fields and students who wish to pursue mathematics in graduate school. Clark mathematics majors have gone on to graduate school in pure mathematics, applied mathematics, and computer science at such universities as Brown, Cornell, Johns Hopkins, and NYU (Courant Institute). Graduates are employed in the public and private sectors as statisticians, mathematical modelers, and actuaries, as well as teachers from the elementary to university level.

The mathematics major, built around a core of fundamental courses, is best started early with calculus or (MATH 120-121 or MATH 124-125) in the first year. Advanced electives provide some flexibility and allow students to tailor the major to their needs. Following the description of the requirements are suggestions for concentrations in pure mathematics, applied mathematics, and actuarial science.

Department faculty are eager to help students select courses. If a major has not been declared earlier, it must be declared by the end of the sophomore year. Students should choose an academic adviser from the department faculty as early as possible, and in any case by the end of the sophomore year. Entering students enrolled in first-year seminars in programs outside mathematics, computer science, or the natural sciences are especially encouraged to make a prompt choice of an unofficial secondary adviser in the Mathematics Department, who will be able to supplement the advice offered by their primary adviser.

Requirements

Core Courses:

These courses are prerequisites for the advanced courses and should be taken as soon as possible.

Calculus sequence (MATH 120-121-122 or MATH 124-125)

Linear Algebra (MATH 130)

Multivariate Calculus (MATH 131)

Introduction to Modern Analysis (MATH 172)

Breadth Courses

Modern Algebra (MATH 225)

Two math electives (MATH 105, 114, 115, or any courses beyond MATH 125)

Depth Courses

Four additional courses at the 200 level, one a capstone course to be selected with the major adviser (internships and reading courses will meet this requirement only with departmental approval)

(Total twelve or thirteen courses, depending on student's choice of calculus sequence)

Suggested Specializations in Mathematics

Pure mathematics is the study of mathematics as an end in itself. Many students are originally attracted to mathematics because of its powerful applications, but a taste for pure mathematics often develops after studying the subject. Students planning to study mathematics in graduate school should consider programs in either pure or applied mathematics. Suggested courses: MATH 214 Modern Analysis; MATH 216 Complex Analysis; MATH 226 Modern Algebra II; and MATH 228 Topology.

Applied mathematics is the study of mathematics as applied to the natural or social sciences. The heart of the field is modelling—translating aspects of natural or social phenomena into mathematical objects that can be studied with such mathematical tools as differential equations, linear systems, and stochastic processes. Suggested courses: MATH 212 Numerical Analysis; MATH 214 Modern Analysis; MATH 216 Complex Analysis;

MATH 217-218 Probability and Statistics and Topics in Statistics; and MATH 244 Differential Equations.

Actuarial science is the study of finance and insurance. Study in this field requires a grounding in mathematics and statistics and an understanding of economics and business management. Suggested courses: MATH 212 Numerical Analysis; MATH 217-218 Probability and Statistics and Topics in Statistics; MATH 244 Differential Equations; and appropriate courses in economics or business management.

Honors Program

A major who maintains at least a 3.2 average (4.0 scale) in courses required for the major may apply for the departmental honors program. A student's application in writing must be directed to a prospective honors adviser or the department chair by the end of the student's junior year. Honors may be achieved in one of two ways:

1. A unified four-course sequence as a senior (some parts of which may consist of reading courses), followed by a comprehensive examination.
2. An honors project to be presented at an oral defense or at a department seminar. This project may be an independent or joint research thesis, or it may be a programming project. Supporting course work may be required. Students interested in pursuing the honors program should consult their department adviser. The student registers for MATH 299, Sec. 8, for course credit for an honors thesis.

Upon satisfactory completion of the program, the department may recommend graduation with honors, high honors, or highest honors.

The Mathematics Minor

The mathematics minor consists of the following: calculus sequence (MATH 120-121-122 or MATH 124-125); MATH 130 Linear Algebra; MATH 131 Multivariate Calculus; and two other mathematics courses (excluding MATH 113 and MATH 119), at least one of which

must be 200 level. (Reading courses and internships are accepted only with departmental approval.) The two elective courses depend on the student's interest. For instance, a student interested in the physical sciences could take MATH 172 Introduction to Modern Analysis and MATH 244 Differential Equations, while MATH 217-218 Probability and Statistics, and Topics in Statistics might be more appropriate for social sciences. See the department for further suggestions. Total: six or seven courses, depending on student's choice of calculus sequence.

Secondary Education Certificate in Mathematics Education

Certificate requirements include courses in education and in mathematics. Consult the Education Department for information on required courses in education and the most recent state guidelines. The mathematics department recommends the completion of a regular mathematics major, with MATH 126 Elementary Number Theory and MATH 128 Modern Geometry included as the two elective Breadth Courses.

Mathematical Services

The mathematics department offers courses to help students using mathematics as a tool for studying other areas; See MATH 113 Mathematical Problem Solving and MATH 217-218 Probability and Statistics, and Topics in Statistics. Outside the department, COPACE offers IDND 17 Foundations of Quantitative Thinking.

Calculus

Calculus is an essential tool for every serious student of mathematics or the natural sciences. It also is used in economics and other disciplines. The Department of Mathematics offers two calculus tracks:

- MATH 120-121-122 and
- MATH 124-125

Both tracks are open to first-year students with appropriate scores on the placement test.

MATH 124 is geared towards students who have had prior experience with (regular and AP) calculus. Strong students in the physical sciences are urged to start with MATH 124. The Mathematics Department generally recommends that even students with a high AP score take MATH 124. In exceptional circumstances, first-year students may enroll in MATH 130.

Mathematics Placement Test

All students who intend to take mathematics courses or who need to satisfy the University's mathematics proficiency requirement (with the exception of students with advanced-placement credit in calculus) must take the mathematics placement test, given during orientation and preregistration. Based on placement test scores, some students will be required to pass IDND 17 Foundations of Quantitative Thinking, offered through COPACE before they enroll in a formal-analysis course. Other students, who place at levels ranging from precalculus through MATH 124, must begin in a course corresponding to their placement test scores. This course must not be higher or lower than the test score indicates. Students may challenge their placement by taking backup placement tests. (For more information about the University's mathematical and quantitative-thinking requirements, see page 6.)

Mathematics Courses

105 HISTORY OF MATHEMATICS/LECTURE, DISCUSSION

Explores major themes—calculation, number, geometry, algebra, infinity—and their historical development in civilizations ranging from the antiquity of Babylonia and Egypt through classical Greece, the Middle and Far East, and then modern Europe. Analyzes the tension between applications of mathematics and the tendency toward formalism. Emphasizes presentations and discussions. Satisfies the historical perspective. Mr. Joyce/Offered periodically

113 MATHEMATICAL PROBLEM SOLVING/LECTURE, WORKSHOP

Intended for students who will use mathematics in such subjects as management and the social sciences, but who are not necessarily planning to go on to calculus. MATH 113 cannot be used as a prerequisite for either calculus sequence, and does not satisfy any requirement of either the major or the minor in mathematics or computer science. Covers some precalculus topics (algebraic manipulations, functions and graphs, exponentials and logarithms), but major emphasis is on mathematical analysis of concrete situations (word problems, mathematical modeling, exponential growth, applications of linear systems, elementary probability). Prerequisites: A suitable score on the mathematics placement test. Staff/Offered every semester.

114 DISCRETE MATHEMATICS/LECTURE

Covers mathematical structures that naturally arise in computer science. Includes elementary logic and set theory, equivalence relations, functions, counting arguments, asymptotic complexity, inductively defined sets, recursion, graphs and trees, Boolean algebra and combinatorial circuits, finite state automata, and diagonalization and countability arguments. Emphasizes proofs and problem solving. Prerequisite: One semester of calculus (MATH 120 or 124) or CSCI 101. Mr. Chou, Mr. Green, Mr. Joyce/Offered every semester

119 PRECALCULUS MATHEMATICS/LECTURE, DISCUSSION

Intended for students who plan to go on to calculus. MATH 119 is to be used, when necessary, as preparation for MATH 120 or MATH 124, and does not satisfy any requirement of either the major or the minor in mathematics or computer science. Students should have a solid grasp of elementary algebra. Covers more advanced algebraic techniques (linear and nonlinear inequalities, quadratic equations, linear systems) and gives a rigorous look at elementary functions (polynomial, exponential, logarithmic, trigonometric). Prerequisites: A

suitable score on the mathematics placement test. Staff/Offered every Spring.

120, 121 AND 122 (CALCULUS I, II, AND III) LECTURE

Calculus is essential for majors in biology, chemistry, computer science, mathematics, physics, and environmental science and policy. Part I includes functions, limits, continuity, differentiation of algebraic and trigonometric functions, mean-value theorem, and various applications. Part II includes Riemann sums and integrals, techniques and applications of integration, improper integrals, transcendental functions (logarithms, exponential functions, and inverse trigonometric functions). Part III includes further topics from calculus proper (sequences, series, polar coordinates) and introduces linear algebra (vectors, matrices, and linear systems). Though not all results are derived rigorously, care is taken to distinguish intuitive arguments from rigorous proofs. MATH 120, 121, and 122 fulfill the formal analysis requirement. MATH 122 is a prerequisite for MATH 131 for students who have taken MATH 120-121. Prerequisite for MATH 120: appropriate score on the mathematics placement test, or appropriate grade in MATH 119. Ms. Bernhofen, staff/Offered every fall (120, 122) and spring (121).

124 AND 125 HONORS CALCULUS I AND II/LECTURE

Two-course sequence for strong students with interest in mathematics, computer science, physics, and other natural sciences. Physics majors usually take MATH 124 simultaneously with Physics 120 and MATH 125 simultaneously with Physics 121. Previous experience with calculus is recommended but not required. The honors calculus sequence covers much the same topics from calculus as the regular sequence (MATH 120-121-122), but takes two semesters instead of three, and emphasizes both mathematical rigor and physical intuition. MATH 124 and MATH 125 fulfill the formal analysis requirement. Prerequisite: appropriate score on the mathematics placement test. Mr. Morris, Ms. Sternberg/Offered every fall (124) and spring (125).

126 ELEMENTARY NUMBER THEORY/LECTURE

Introduces number theory and trains students to understand mathematical reasoning and to write proofs. Includes the unique factorization of integers as products of primes, the Euclidean algorithm, Diophantine equations, congruences, Fermat's theorem, and Euler's theorem (and some applications: calendar problems, magic squares, cryptology). Prerequisite: MATH 114, or one semester of calculus (MATH 120 or 124), or permission. Mr. Morris/Offered periodically

128 MODERN GEOMETRY/LECTURE

Recalls Euclidean geometry and then proceeds to modern related topics: Hilbert's axioms; hyperbolic (Lobachevskian), elliptic, and projective geometries, and philosophical implications of geometries without the Parallel Postulate; finite geometries; automorphism groups (Klein's Erlanger Programme). One aim is to show the beauty of deduction in mathematics. Prerequisites: high-school geometry, and either a semester of college mathematics or permission. Mr. Joyce, Mr. Rudolph/Offered periodically

130 LINEAR ALGEBRA/LECTURE

A requirement for all mathematics majors; highly recommended for all computer science majors. Topics include vector spaces, systems of linear equations, linear transformations, dual spaces, eigenvectors and eigenvalues, determinants, and bilinear forms. Possible additional topics include applications to computer graphics, linear regression (least squares), Fourier series, and differential equations. Prerequisite: MATH 121 or 125. Mr. Rudolph, Ms. Sternberg/Offered every fall

131 MULTIVARIATE CALCULUS/LECTURE

A continuation of calculus (MATH 120-121-122 or 124-125). Topics include partial differentiation, multiple integration, and theory and practice of integration over parametrized curves and surfaces, culminating in Stokes' Theorem. Prerequisites: MATH 122 or MATH 130. Mr. Chou, Ms. Sternberg/Offered every spring.

172 INTRODUCTION TO MODERN ANALYSIS/LECTURE

Modern analysis provides a language and unifying framework for theories encountered throughout mathematics. In this course, students learn to understand, formulate, and prove mathematical statements. Ideas first encountered in calculus—convergence, completeness, and integration—are studied in depth. Other topics include metric spaces, normed spaces, compactness, and measure theory (Lebesgue integration). Required for mathematics majors by the junior year, and earlier if possible. Prerequisite: MATH 122 or MATH 125. Mr. Chou, Ms. Sternberg/Offered every year

181 MATHEMATICAL THEORY OF COMPUTATION

See Computer Science 270. Mr. Chou, Mr. Green/Offered every other year

201 PROSEMINAR IN MATHEMATICS/SEMINAR

Senior undergraduates study and speak on topics in mathematics to become acquainted with diverse subjects, learn to research known topics, and get practice in presenting mathematics to peers. Faculty present their research areas. Possible topics include: category theory, knot theory, automorphic forms, topos theory, low-dimensional topology, class field theory, group representation theory, and dynamical systems. This is a capstone course in mathematics. Staff/Offered periodically

212 NUMERICAL ANALYSIS/LECTURE, LABORATORY

Introduces concepts and techniques of scientific computing to students in mathematics, computer science, and the sciences. Teaches how to set up reasonable computational algorithms and use the algorithms to work on actual projects. Topics include approximation theory, error analysis, numerical differentiation and integration, and solution of ordinary differential equations and linear systems. Prerequisites: MATH 130 and MATH 172. Mr. Chou, Ms. Sternberg/Offered every other year

214 MODERN ANALYSIS/LECTURE

Ideas introduced in MATH 172 are developed and applied to scientific models. Topics include Hilbert spaces, L_p spaces, Fourier series, Weierstrass approximation theorems, and linear operators. Prerequisites: MATH 130 and MATH 172. Mr. Chou, Ms. Sternberg/Offered every other year

216 FUNCTIONS OF A COMPLEX VARIABLE/LECTURE

Designed for undergraduate science and mathematics majors. Includes Cauchy's theorem, power series, Laurent series, the residue theorem, harmonic functions, and physical applications, such as problems in two-dimensional flow. An introduction to Riemann surfaces if time permits. Prerequisite: MATH 131 and MATH 172. Mr. Rudolph/Offered periodically

217 PROBABILITY AND STATISTICS/LECTURE

An introduction to probability theory and mathematical statistics that emphasizes the probabilistic foundations required to understand probability models and statistical methods. Topics covered will include the probability axioms, basic combinatorics, random variables and their probability distributions, mathematical expectation and common families of probability distributions. Prerequisite: MATH 131. Ms. Bernhofen/Offered every year.

218 TOPICS IN STATISTICS/LECTURE

The emphasis of this course is to develop the fundamental statistical concepts of inference and hypothesis testing from a classical perspective using the tools of probability theory. Topics investigated include sampling and sample distributions, graphical data analysis, point and interval estimation, hypothesis testing, and an introduction to Bayesian inference. Prerequisite: MATH 217 or Economics 260. Ms. Bernhofen/Offered periodically.

225 MODERN ALGEBRA I/LECTURE

In the 19th century, Kummer introduced "ideal numbers" to salvage unique factorization of integers into primes (which breaks down in some rings of algebraic integers). This course discusses unique factorization and the modern

theory of rings and their ideals, emphasizing Euclidean domains. Other algebraic structures (groups, fields) also are introduced. Required for all mathematics majors. Prerequisite: MATH 130. Mr. Morris, Mr. Joyce/Offered every year

226 MODERN ALGEBRA II/LECTURE

In the early 1800s, Abel showed that a general equation of degree at least five cannot be solved by extracting roots. Today, group theory, developed by Galois to determine which equations are solvable, is used throughout mathematics, and in much of physics and chemistry. This course focuses on groups and Galois theory. Other possible topics include canonical forms of matrices and modules. Prerequisite: MATH 225. Mr. Joyce, Mr. Morris/Offered every other year

228 TOPOLOGY/LECTURE

Homology theory is the proper context for Stokes' theorem (MATH 131). This course continues the study (begun in MATH 131 and MATH 172) of the topological properties of subsets of Euclidean space, developing algebraic tools like homology and fundamental groups. Further topics may include fixed-point theory, the Jordan curve theorem, and knot theory. Prerequisites: MATH 131 and MATH 172. Mr. Rudolph/Offered every other year

244 DIFFERENTIAL EQUATIONS/LECTURE

Most ordinary differential equations occurring in mathematical models of physical, chemical, and biological phenomena cannot be solved analytically. Numerical integrations do not lead to a desired result without qualitative analysis of the behavior of the equation's solutions. This course studies the flows of scalar and planar ordinary differential equations. Stability and bifurcation are discussed. Prerequisite: MATH 130 and MATH 172. Ms. Sternberg/Offered every other year

Computer Science

Courses in computer science are listed in the Computer Science section of this catalog.

MUSIC

(See Visual and Performing Arts).

PHILOSOPHY

Program Faculty

Judith DeCew, Ph.D., *chair: theoretical and applied ethics, philosophy of law, social and political philosophy*

Patrick Derr, Ph.D.: *philosophy of science, biomedical ethics, history of modern European philosophy, ethical issues in hazards management*

Scott Hendricks, Ph.D.: *philosophy of mind, epistemology, philosophy of psychology, action theory, logic*

Gary Overvold, Ph.D.: *contemporary continental philosophy, interdisciplinary studies, epistemology, cultural history, modernism*

Michael Pakaluk, Ph.D.: *ancient philosophy, analytic philosophy, Hume, philosophy of psychology, philosophy of love and friendship, logic*

Walter Wright, Ph.D.: *19th-century philosophy, ethics, philosophy of religion, metaphysics, German idealism*

Part-time Faculty

Barbara Carlson, C.Phil.

Affiliate Faculty

Bernard Kaplan, Ph.D.

Christina Sommers, Ph.D.

Undergraduate Program

The Philosophy Department offers an undergraduate major program in philosophy, a concentration in ethics and public policy, a minor in philosophy, and a variety of elective courses which nonmajors may take to broaden their education and fulfill program of liberal studies requirements.

The Philosophy Major

The requirements for a major in philosophy are designed to ensure exposure to the major systematic fields in philosophy, to ensure familiarity with advanced analytic and logical methods, to acquaint the student with the history of

the discipline, and to provide close faculty-student contacts through advanced seminars and individual research projects. The major program accommodates both general liberal-arts students as well as double majors, and those students pursuing honors work as well as those considering graduate study in philosophy. Students, especially those considering graduate school, who wish a more intensive course of study toward the major should consult with department faculty and study the philosophy-major handbook in the department office.

Major requirements

1. Required courses in philosophy
 - One course in formal logic (110)
 - Two courses in the history of philosophy (141, 142, 143, or 145)
 - One advanced course in the area of metaphysics (234 or 235)
 - One advanced course in the area of epistemology (240 or 241)
 - One advanced course in the area of ethics and social philosophy (220, 221, or 228)
 - One advanced elective or above, chosen to complement the student's second major or intended professional field
 - A designated capstone seminar
2. Required courses outside philosophy
 - Either: (i) a completed double major; or
 - (ii) a completed concentration (for example, environmental science and policy, ethics and public policy, women's studies, classics, ancient civilizations, Jewish studies, or communications); or (iii) a completed minor in any other program or department.

The Philosophy Minor

Students pursuing a minor in philosophy at Clark can choose one of two tracks. Each track requires six courses in philosophy, and each is designed to develop students' intellectual skills and to familiarize them with the fundamental methods of philosophical inquiry. Each track begins with a foundation in logic and practical ethics.

The traditional Great Issues-minor track emphasizes a grounding in the history of philosophy. This track engages the student in the fundamental philosophical questions with which human beings have been perennially concerned: for example, Does God exist? How ought I to live? What is knowledge? Do human beings have free will? Can political authority be legitimated? Is there life after death?

The optional Enriched-major track emphasizes advanced work in courses related to students' majors. This track engages students in the fundamental philosophical questions which their own major fields raise but do not answer: for example, What is a mind? What is a person? What is the nature of a profession? What is science? What is justice?

Requirements for the Great Issues-Minor Track

- One course in logic (103 or 110)
- One course in practical ethics (105, 130, 131, 132, 133, or 139)
- Three courses in the history of philosophy (141, 142, 143, 145, 148, 154, or 215)
- One advanced elective course (150+)

Requirement for the Optional Enriched-Major Track

- One course in logic (103 or 110)
- One course in practical ethics (105, 130, 131, 132, 133, or 139)
- One course in the history of philosophy (141, 142, 143, 145, 148, 154, or 215)
- One elective course, chosen at any level
- Two advanced courses (150+) chosen to complement the student's major or pre-professional program.

Directed Readings, Individual Research, Tutorials

For significant independent research, the department offers individual Directed Research (PHIL 299.2) and Directed Readings (PHIL 299.1) courses, and Advanced Topics in Philosophy courses (PHIL 299.7). Students interested in these possibilities should consult with individual members of the philosophy faculty.

Internships, Research Apprenticeships

Students are encouraged to apply for a research apprenticeship with an individual philosophy professor. Research apprentices work closely with their mentor on the mentor's scholarly research, sometimes co-authoring a published article. Some recent topics have been: ethical issues in reproductive technology; privacy in law and ethics; and statistical stylometry and ancient philosophy. Philosophy faculty also sponsor off-campus undergraduate internship experiences. Students interested in these opportunities may inquire at the department or through the internship office.

Senior Thesis

Undergraduate majors are encouraged to complete a senior thesis (PHIL 299.8); majors intending graduate study especially should consider this. Thesis students engage in advanced individual research on a selected philosophical problem, guided by a faculty adviser and a thesis committee composed of three faculty members. See 299.8 for more information.

Honors

Honors, high honors, or highest honors in philosophy may be conferred at graduation upon majors who, in addition to having compiled a suitable record in the major, successfully defend their senior thesis in an oral presentation to their thesis committee. To be considered for honors, a student must have at least a 3.0 overall GPA combined with a higher GPA in philosophy. Students who complete a thesis but do not have an adequate GPA, or who otherwise don't meet honors requirements, will simply receive a grade (without an honors designation) for their senior thesis.

Department Prizes and Awards, and Student and Honor Societies

Each year, the department inducts its best junior and senior philosophy majors into Phi Sigma Tau, the national philosophy honor society. At the spring honors convocation, the department awards one or more prizes to exemplary graduating seniors. At the fall convocation, the department confers a prize for the

best work in logic by a first- or second-year student.

The Philosophy Club, a student organization, sponsors lectures, colloquia and informal educational and social activities for all interested Clark students.

Professional Organizations

The Clark University Department of Philosophy houses the New England Chapter of the Society for Philosophy and Public Affairs, a national organization that works to promote the application of philosophical methods and insights to issues of public policy. The society sponsors colloquia, symposia, and conferences. Inquiries concerning its activities may be directed to the department.

The department is a founding member of the Boston-area Colloquium in Ancient Philosophy. The organization sponsors lectures and seminars at the various member college campuses.

Departmental Publications

The international philosophical journal, *Idealistic Studies*, is edited by Gary Overvold. Founded by Robert N. Beck, *Idealistic Studies* is a leading interdisciplinary journal focusing on issues of contemporary European philosophy and idealism.

Courses

102 INTRODUCTION TO PHILOSOPHY/LECTURE, DISCUSSION

Introductory study of typical problems drawn from philosophy's main branches. Topics include God's existence, the nature of morality, skepticism, freedom vs. determinism, immortality, and political theory. Readings are taken from both classic and contemporary sources. Mr. Overvold, Mr. Derr, Mr. Pakaluk, Mr. Hendricks/Offered every year

103 ANALYTIC REASONING/LECTURE, DISCUSSION

Analysis of argumentative essays (drawn from newspapers, philosophical works, legal journals, and popular magazines) on such topics as affirmative action, the problem of evil, the nature of law, scientific method, etc. Students

learn to read, write, and think in a more analytical and critical manner. Ms. Carlson/ Offered every semester

105 PERSONAL VALUES/LECTURE, DISCUSSION

A philosophical study of some fundamental human value concerns. Students learn some important moral theories and methods used to reason philosophically about moral questions. Ms. Carlson, Ms. DeCew, Mr. Wright/ Offered every semester

106 SCIENCE, RELIGION AND REALITY/FIRST-YEAR SEMINAR

This seminar will address some basic issues in the philosophy of science and the philosophy of religion: What is science? What is reality? How do science and religion differ with regard to the relative roles played by faith and evidence in establishing knowledge claims about reality? Does science provide better explanations than theology or literature? How do religious arguments for the existence of God differ from scientific arguments for the existence of black holes? Special attention will be given to developing students' abilities to read complex texts, write logically, think analytically, and argue cogently. Mr. Derr/Offered every year

107 LOGIC AND LEGAL ANALYSIS/LECTURE, DISCUSSION

Gives students a strong grounding in modern logic, to use the techniques of formal logic for the analysis and evaluation of legal arguments (including examples relevant to the LSAT exam) and, generally aids students in improving their analytical skills. Ms. Carlson/Offered every year

108 PRIVACY, PROTECTION IN LAW AND ETHICS/FIRST-YEAR SEMINAR

This course will survey the history of privacy protection as it has evolved in American tort law and constitutional law. Students will analyze alternative philosophical characterizations of privacy and its scope, focusing on information, autonomy, property, and intimacy. The varied reasons for valuing privacy will be assessed and contrasting versions of the femi-

nist critique of privacy as a tool for shielding abuse will be considered. Throughout the course, study will focus on landmark legal cases invoking privacy from the early 1900's to the present, with an eye toward understanding the scope and limits of privacy protection. Also considered will be numerous applications of privacy to moral and legal issues including the legislation of morals, drug testing, and information technologies. Ms. DeCew/Offered every year

109 LIFE/TIMES OF DAVID HUME/FIRST-YEAR SEMINAR

A study of the philosophy of the famous skeptical Scottish philosopher, David Hume. We look at his arguments denying the reality of cause and effect, laws of nature, free will, miracles, and the existence of God. We also study replies to and criticisms of Hume's thought, especially those raised by his most formidable critic, his fellow Scotsman, Thomas Reid. Both Hume and Reid are viewed in the context of the remarkable 18th c. renaissance called the Scottish Enlightenment. The course is an excellent introduction to philosophy and to liberal studies generally, because of its emphasis on logical thought and good writing. Mr. Pakaluk/Offered every year

110 INTRODUCTION TO LOGIC/LECTURE, DISCUSSION

An introduction to modern symbolic logic with attention to its application in analyzing ordinary language arguments. Mr. Pakaluk, Mr. Hendricks, Ms. Carlson/Offered every year

111 PERSONS, ROBOTS AND APOCALYPSE/FIRST-YEAR SEMINAR

Examination of the place of human beings in the present world. We discuss various modern visions of human beings - political, scientific and religious. Readings include accounts of the Nazi holocaust, current literature in psychology, and both fiction and film exploring the idea that people are essentially machines. Mr. Hendricks/Offered every year

125 ATHEISM AND BELIEF IN GOD

The goal of this course is to introduce students to two basic worldviews—the atheistic world-

view and the theistic worldview—and to help them find reasonable grounds for deciding upon the one or the other. In looking at these, the course also introduces students to some of the most important movements in thought shaping the last century. Mr. Pakaluk/Offered periodically

130 MEDICAL ETHICS/LECTURE, DISCUSSION

Investigates contemporary issues in medical ethics: informed consent, definitions of death, treatment termination and euthanasia, abortion, confidentiality and truth telling, genetic screening and counseling, research on human subjects, resource allocation, reproductive technologies, conflicts of interest, and national health policy. Not open to first-year students. Mr. Derr/Offered every year

131 ENVIRONMENTAL ETHICS/LECTURE, DISCUSSION

What principles should guide human interaction with the environment? This course considers a range of moral perspectives, including anthropocentrism, animal-rights theory, biocentrism, social ecology, ecocentrism, deep ecology, ecofeminism, and the land ethic. It also considers a range of environmental issues, such as global warming, species preservation, population policy, pollution, and sustainable development. Mr. Derr/Offered every year

132 SOCIAL AND POLITICAL ETHICS/LECTURE, DISCUSSION

Topics in social and political theory, such as equality, liberty, and justifications for political authority, as well as issues such as: What is affirmative action, and can it be morally justified? Should governments censor pornography? Is capital punishment acceptable? Can war be justified? Should morality be legislated? Ms. DeCew, Mr. Pakaluk/Offered every year

133 BUSINESS ETHICS/LECTURE, DISCUSSION

Investigates moral problems in and about the world of business: Do corporations have moral responsibilities, or is their only social responsibility to increase profits? Is capitalism morally justifiable, or is some other politico-economic system morally preferable? Discusses ethical

issues in advertising, affirmative action, and business's responsibilities toward the environment. Staff/Offered periodically

134 LIBERALISM AND ITS CRITICS/LECTURE, DISCUSSION

After a basic introduction to the liberal political theory of John Rawls, the course examines his recent critics to investigate whether and how conservative political thought offers a viable alternative to liberalism. Mr. Pakaluk/Offered periodically

135 EXISTENTIALISM IN PHILOSOPHY, LITERATURE, AND THE HUMAN SCIENCES/LECTURE, DISCUSSION

Explores central existential themes—such as the meaning of life, freedom and responsibility; the role of the irrational in human thought, action and expression; and the death of God in their historical, cultural, and thematic context. Existentialism is treated both as a postwar cultural event and as a view of life's meaning and possibilities. Mr. Overvold /Offered every year

136 THE LIFE AND TIMES OF DAVID HUME/LECTURE, DISCUSSION

An examination of Hume's "Enquiry Concerning Human Understanding" in relation to the Scottish Enlightenment and the criticisms of Reid. Mr. Pakaluk/Offered periodically

139 MORAL PROBLEMS IN THE PROFESSIONS/LECTURE, DISCUSSION

This course examines moral issues and dilemmas typically found in the professions, that is, in law, medicine, advertising, therapy, business, education, etc. Among the issues considered are privacy and confidentiality, truthfulness and deception, individual responsibility, social justice, professionalism, and generally, the dilemmas created by conflicts between professional or role morality and personal or ordinary morality. Mr. Overvold/Offered periodically

141 HISTORY OF ANCIENT GREEK PHILOSOPHY/LECTURE, DISCUSSION

Examines the origins of Western thought in early Greek philosophy. Readings include the fragments of the pre-Socratic philosophers; the

Apology, Phaedo, Gorgias, and Republic of Plato; and selections from Aristotle. Mr. Pakaluk, Mr. Hendricks/Offered every year

142 HISTORY OF MEDIEVAL PHILOSOPHY/LECTURE, DISCUSSION

Surveys Christian, Jewish and Islamic medieval philosophy with special attention to some of the philosophical texts that were pivotal to the later development of Western philosophy and culture. These include Augustine's Confessions, Boethius' Consolation of Philosophy, and Aquinas' Summa Contra Gentiles. Mr. Pakaluk/Offered periodically

143 HISTORY OF MODERN EUROPEAN PHILOSOPHY/LECTURE, DISCUSSION

The two great movements in modern Western thought—Continental Rationalism and British Empiricism—are examined from their common origin in Descartes, through their later articulations by Hobbes, Locke, Berkeley, Leibniz, and Hume, to their eventual transformation by Immanuel Kant. Emphasis is on the interaction of philosophy and science and on the powerful influence exerted by the modern European thinkers upon contemporary thought. Mr. Derr/Offered every year

145 HISTORY OF CONTEMPORARY PHILOSOPHY/LECTURE, DISCUSSION

Surveys the major trends in recent Anglo-American and Continental philosophy: pragmatism, logical positivism, ordinary language philosophy, hermeneutics, and phenomenology. Each alternative is considered as a coherent perspective on experience, with special attention given to its style and methodology. Prerequisite: Philosophy 143 or permission of the instructor. Mr. Overvold/Offered every year

148 HISTORY OF AMERICAN PHILOSOPHY/LECTURE, DISCUSSION

Concentrates on the founders of the first indigenous American philosophical movement, pragmatism—Peirce, James, and Dewey—and explores their influence on later pragmatists—Lewis, Quine, and Rorty. Prerequisite: one course in philosophy. Staff/Offered periodically

150 PHILOSOPHY OF RELIGION/LECTURE, DISCUSSION

Studies religion as a form of worldview and a perennial dimension of human experience.

Prerequisite: one course in philosophy.

Mr. Wright/Offered every year

154 RECENT EUROPEAN PHILOSOPHY/LECTURE, DISCUSSION

Introduces five contemporary European philosophical movements: hermeneutics, deconstructionism, critical theory, structuralism and poststructuralism. Prerequisite: two courses in philosophy or permission of instructor.

Mr. Overvold/Offered periodically

160 INTERMEDIATE LOGIC/LECTURE, DISCUSSION

An examination of one of the following: extensions of first-order logic (modal logic, deontic logic, tense logic); metalogic; axiomatics; philosophical problems that arise in connection with formal logic. Mr. Pakaluk/Offered periodically

169 AESTHETICS/LECTURE, DISCUSSION

Why did Plato condemn poets and their work?

Can art be neatly defined? Is art "imitation," "emotion," "relations of forms" or is it indefinable? Are there standards of beauty? Among the theories we consider are those of Aristotle, Tolstoy, Collingwood, Danto, Dickie, and Kant. Prerequisite: one course in philosophy.

Mr. Hendricks/Offered periodically

170 PHILOSOPHY OF PSYCHOLOGY/LECTURE, DISCUSSION

A philosophical consideration of central concepts and major theories in psychology.

Mr. Hendrick/Offered periodically

171 PHILOSOPHY OF EDUCATION/LECTURE, DISCUSSION

An examination of our educational institutions, the value of education, and various theories of education. Focus on such questions as: What kinds of educational institutions are possible? Which ones are best? What does it mean to be educated? What is the value of being educated? We will approach these questions through the works of Marx, Plato, Rousseau and others. In addition, we consider the appli-

cation of research in psychology and social psychology. Mr. Hendricks/Offered every year

201 SURSEMINAR: RESEARCH AND WRITING IN PHILOSOPHY/SEMINAR

Prerequisite: permission. Staff/Variable credit

202 SURSEMINAR: PHILOSOPHICAL JOURNALS/SEMINAR

Prerequisite: permission. Staff/Variable credit

203 SURSEMINAR: TEACHING PHILOSOPHY/SEMINAR

Registration is limited to students working as discussion group leaders in Philosophy 102, 105, 110, 130, 131 or 132. Mr. Derr, Ms. DeCew, Mr. Hendricks, Mr. Pakaluk, Mr. Wright/Offered every semester

210 MODERNISM IN PHILOSOPHY, LITERATURE, AND THE ARTS/LECTURE, DISCUSSION

Between 1890 and 1930, the forms of inquiry and artistic expression in Western culture went through radical, foundational transformation. Using representative texts from the humanities and the arts, this course examines the Modernist transformation in its historical, cultural, and thematic context, using a multidisciplinary perspective to integrate topics in related areas of inquiry and expression. Prerequisite: two courses in philosophy plus courses in related areas. Mr. Overvold/Offered periodically

211 COGNITIVE SCIENCE/LECTURE, DISCUSSION

Focuses on the assumption that the mind is a machine that can be studied scientifically. This involves an examination of the twin ideas that the mind is a computer and that an artificial computer could have a mind. Also, we examine various proposals for how the mind is structured—specifically, the "digital computational" approach and connectionist (PDP) architectures. Our examination attends to research in artificial intelligence, cognitive psychology, neuroscience, and philosophy.

Mr. Hendricks/Offered periodically

212 PHILOSOPHY AND THE HUMAN SCIENCES/LECTURE, DISCUSSION

Using texts from both the humanities and the social sciences, the course examines central philosophical themes in the human sciences—

rationality; action, choice, and character; human nature; the other; self and society; explanation and human action—in their historical, cultural, and thematic context, integrating topics in related areas of inquiry and expression. Prerequisite: two courses in philosophy plus courses in related areas.

Mr. Overvold/Offered periodically

213 THE IDEAL OF THE EDUCATED PERSON/ SEMINAR

This course presents the models of humanity, which have been dominant in Western culture. It encourages us to understand, reflect upon, and discuss the competing ideals which influence the formation of educational goals, determine the purpose of public policy, and shape our reflections on self-understanding. Mr. Overvold, Mr. Hendricks/Offered periodically

215 KANT AND THE 19TH CENTURY/LECTURE, DISCUSSION

Examines the work of Kant and selected later philosophers (Fichte, Hegel, Schopenhauer, Nietzsche, Marx, Engels, and Comte) with emphasis on their influence on contemporary thought. Prerequisite: two courses in philosophy, including PHIL 143. Mr. Wright/Offered every other year

219 FEMINIST THEORY/LECTURE, DISCUSSION

Investigates selected topics in recent feminist philosophical literature. Topics and authors vary each year. Attention is given to the many different perspectives included in contemporary feminist theory. Prerequisite: two courses in philosophy or permission of the instructor. Staff/Offered periodically

220 THEORIES OF ETHICS/LECTURE, DISCUSSION

Examines the principal ethical theories from the history of Western philosophy, including such philosophers as Plato, Aristotle, Epicurus, Aquinas, Hobbes, Hume, Kant, Mill, Ross, and Rawls. Topics include: What is "the Good"? Are there fundamental standards of right conduct? Are moral judgments objective? Why should we be moral? Prerequisite: two courses in philosophy. Ms. DeCew/Offered every year

221 SOCIAL AND POLITICAL PHILOSOPHY/ LECTURE, DISCUSSION

Surveys the leading philosophical accounts of social and political institutions. Property, civil and natural rights, freedom and obligations, and the legitimation of political authority are treated in detail. Readings include both classical and contemporary sources. Prerequisite: two courses in philosophy. Ms. DeCew/Offered every other year

228 CONTEMPORARY MORAL THEORY/LECTURE, DISCUSSION

Surveys recent work in moral theory (including both metaethical and normative issues) by leading Anglo-American philosophers. Prerequisite: two courses in philosophy. Ms. DeCew, Mr. Pakaluk/Offered periodically

232 CASE STUDIES IN ENVIRONMENTAL ETHICS/SEMINAR

234 METAPHYSICS/LECTURE, DISCUSSION

An advanced study of fundamental problems in metaphysics: universals, substance, the mind/body relation, category theory, identity and individuation, free will, and the nature of space and time. Prerequisite: two courses in philosophy. Mr. Pakaluk, Mr. Wright/Offered every other year

235 SELF AND NATURE/LECTURE, DISCUSSION

Considers various conceptions of the self in relation to nature developed by classical and contemporary thinkers, with emphasis on the interconnectedness of these terms. Prerequisite: two courses in philosophy. Mr. Wright/Offered every other year

240 EPISTEMOLOGY/LECTURE, DISCUSSION

Studies the nature, concept, and sources of knowledge, with special attention to the interrelationships among belief, knowledge, evidence, proof, truth, and the problem of relativism, skepticism, and foundationalism. Prerequisite: two courses in philosophy. Mr. Overvold, Mr. Hendricks/Offered every year

241 PHILOSOPHY OF SCIENCE/LECTURE, DISCUSSION

Examines such questions as: What is a scientific explanation? Can induction be justified?

What could justify the claim that one theory is better than another? Are there such things as objective facts? Do scientific theories disclose the ultimate constituents of the universe? What is the difference between science and pseudoscience? Prerequisite: four courses in natural sciences or two courses in philosophy. Mr. Derr/Offered every other year

242 PHILOSOPHY OF LANGUAGE/LECTURE, DISCUSSION

A philosophical examination of language. Explores general questions such as: What is the relationship between language and the world? What is the relationship between language and thought? Focuses on the nature of reference, meaning, names, conceptual schemes, and analyticity. We will read works by Frege, Russell, Grice, Quine, Kripke and Kaplan. Mr. Hendricks/Offered periodically

250 PLATO/SEMINAR

An advanced study of the philosophical thought of Plato. The seminar involves careful reading and discussion of one of the major dialogues, such as the *Parmenides*, *Sophist*, or *Theaetetus*. Prerequisite: Philosophy 141. Mr. Pakaluk/Offered every other year

251 ARISTOTLE/SEMINAR

An advanced study of the philosophical thought of Aristotle. The seminar involves careful reading and discussion of one of the major works, such as the *De Anima*, *Physics*, *Metaphysics*, and *Nicomachean Ethics*. Prerequisite: Philosophy 141. Mr. Pakaluk/Offered every other year

256 KANT/SEMINAR

A study of Kant's "Critique of Pure Reason"—regarded by many as the most important philosophical text of the last several hundred years. Prerequisite: two courses in philosophy, including 143. Mr. Wright/Offered periodically

257 HEGEL/SEMINAR

Hegel's "The Phenomenology Mind" and selections from his other works are covered. Prerequisite: two courses in philosophy, including 143. Mr. Wright/Offered periodically

258 THE ORIGINS OF ANALYTIC PHILOSOPHY/SEMINAR

Examines the development of analytic philosophy through an intensive study of its three founding figures: Gottlob Frege, Bertrand Russell, and Ludwig Wittgenstein. Readings include Frege's *Foundations of Arithmetic*, Russell's *Mysticism and Logic*, and Wittgenstein's *Tractatus Logico-Philosophicus*. Prerequisite: two courses in philosophy, including 110 or 160. Mr. Pakaluk/Offered periodically

260 KIERKEGAARD AND NIETZSCHE/SEMINAR

Studies Kierkegaard and Nietzsche as seminal figures in 19th-century intellectual life and as sources of later 20th- and 21st-century philosophical developments. Particular attention is given to their views of human existence and of truth. Prerequisite: two courses in philosophy. Mr. Overvold/Offered periodically

263 PHILOSOPHY OF MIND/SEMINAR

A critical examination of the nature and concept of mind. We consider various issues from among the following: What is the relationship between the mind and the brain? What is the nature of consciousness? How do mental states represent the world? What is the structure of the Mind? Is the mind a machine? Mr. Hendricks/Offered periodically

265 IDEALISM/SEMINAR

Detailed and advanced study of the major idealistic philosophers. Course topics and texts will vary. Mr. Wright/Offered every other year

266 CRITICAL RATIONALISM/SEMINAR

Focuses on the theories of knowledge, rationality, and science advanced by such contemporary thinkers as Kuhn, Popper, Feyerabend, Laudan, Lakatos, and Zahar. Prerequisite: two courses in philosophy, including 241, or permission. Mr. Derr/Offered periodically

270 PHILOSOPHY OF LAW/SEMINAR

Examines fundamental questions in philosophy of law, such as: What is the source and purpose of law? What is the nature of judicial reasoning, and is it subjective or governed by some set of principles? How do alternative theories of law explain rights, duties, liability, responsibility,

bility, and so forth? What is the relationship between liberty, privacy, and justice?

Prerequisite: two courses in philosophy.

Ms. DeCew/Offered every year

272 ADVANCED ISSUES IN MEDICAL ETHICS/ SEMINAR

A rigorous investigation of two or three current controversies related to medicine, health policy, and ethics. Readings include original materials from legal, medical, and philosophical literature. Topics have included: surrogate motherhood, AIDS, xenogestation, and assisted suicide. Prerequisite: PHIL 130 and permission of the instructor. Mr. Derr/Offered periodically

275 PHENOMENOLOGY AND HERMENEUTICS/ SEMINAR

Traces the development of two major 20th-century movements in continental philosophy. Edmund Husserl and Maurice Merleau-Ponty are focused on in Phenomenology; Hans Georg Gadamer in Hermeneutics. In both, collateral reading will present the historical context and development of each movement. Prerequisite: at least three courses in philosophy. Mr. Overvold/Offered periodically

276 HEIDEGGER AND EARLY 20TH-CENTURY PHILOSOPHY/SEMINAR

Concentrates on developments in 19th- and 20th-century Continental philosophy, which influenced the main text of this seminar, Heidegger's *Being and Time*. Attention also will be given to the broader cultural context and to parallel changes in American and British philosophy during the early 20th century. Prerequisite: at least three courses in philosophy. Mr. Overvold/Offered periodically

287 PHILOSOPHY OF THE SOCIAL SCIENCES/SEMINAR

A critical and intensive survey of the four alternative accounts of explanation, social reality, and social science put forward by the neopositivist empiricists, the phenomenologists, the neo-Wittgensteinians, and the Continental hermeneuticists and critical theorists. Special attention is given to theories of explanation in history and in psychology.

Prerequisite: at least four courses in philosophy or graduate status in a social science. Mr. Overold, Mr. Kaplan, Mr. Pakaluk/Offered periodically

295 SENIOR THESIS/INDIVIDUAL PROJECTS

The prerequisites, which should be completed by the end of the student's junior year, are: (1) at least six courses in philosophy; and (2) submission and approval of a thesis proposal. The thesis proposal must describe the nature and scope of the proposed project, provide a bibliography of the principal sources the student expects to use, include a schedule for submission of first and final drafts to the adviser and the committee, and be signed by the student's thesis adviser. Upon completion of the thesis, the department faculty schedules an oral defense for the student. For regulations for honors, see earlier entry. Offered for one or two credits over one or two semesters. Staff

299 SEC. 1 DIRECTED READINGS/INDIVIDUAL PROJECTS

299 SEC. 2 DIRECTED RESEARCH/INDIVIDUAL PROJECTS

See description and prerequisites under Major Requirements.

299 SEC. 5 RESEARCH APPRENTICESHIP/ INDIVIDUAL PROJECTS

A research apprentice participates in the current professional research of her or his faculty sponsor. Students accepted as apprentices need initiative, perseverance, and superior research and writing skills. Prerequisite: at least four courses in philosophy, permission of the instructor, and approval of the department. Staff/Offered every semester

299 SEC. 7 ADVANCED TOPICS IN PHILOSOPHY/ INDIVIDUAL PROJECTS

Individual tutorials and supervised research on philosophical topics selected by the student and faculty sponsor. Prerequisite: at least four courses in philosophy and permission of instructor. Staff/Offered every semester

PHYSICS

Department Faculty

Christopher P. Landee, Ph.D., chair: *experimental condensed-matter physics, magneto-chemistry*

Charles Agosta, Ph.D.: *experimental condensed-matter physics, director of 3/2 engineering program*

S. Leslie Blatt, Ph.D.: *physics education, experimental nuclear physics*

John Davies, Ph.D.: *theoretical plasma physics*

Harvey Gould, Ph.D.: *theoretical condensed matter physics, computer simulation*

Arshad Kudrolli, Ph.D.: *experimental condensed-matter physics; granular systems; biological physics*

Adjunct Faculty

Daeg S. Brenner, Ph.D., *nuclear chemistry*

Rafael Bruschweiler, Ph.D., *biophysical chemistry; protein NMR*

Robert L. Goble, Ph.D., *Environmental Science and Policy: technology assessment, atmospheric physics and turbulence*

Alan A. Jones, Ph.D., *polymer chemistry*

Affiliate Faculty

George Phillies, Ph.D., *Worcester Polytechnic Institute: condensed-matter physics*

Emeritus

Roy S. Andersen, Ph.D.: *history and philosophy of science*

Christoph Hohenemser, Ph.D.: *technology assessment; energy and environmental issues*

Roger P. Kohin, Ph.D.: *experimental condensed-matter physics*

Postdoctorate Research Associate

Carmen Gagne, Ph.D.: *theoretical condensed-matter physics, cosmology*

Laboratory Specialist

Louis Colonna-Romano, M.S., M.B.A.: *condensed-matter physics, computational physics*

Undergraduate Program

Physics is the most fundamental of the sciences and is an important part of a liberal-arts education. Introductory courses are designed for students in all majors and provide a background in physical principles, the observation of natural processes, the logic and nature of science, and the diverse applications of physics. The introductory courses are:

- 1. Scientific Perspective Courses.** Physics 020, 030, 140, Astronomy 001, and Astronomy 002 have no prerequisites and satisfy the scientific perspective requirement of the program of liberal studies. Physics 110 and Physics 120 can be taken in satisfaction of either the scientific perspective requirement or the formal analysis requirement, but not both. Physics 111, 121, 127, 130, and 131, which also satisfy the scientific perspective requirement, are primarily for science majors.
- 2. Introductory Sequences.** Prospective science majors are urged to begin their study of physics during their first or second years. The department offers two sequences of introductory courses. Physics 110/111 is a two-semester, noncalculus-based survey of physics appropriate for the majority of science majors, including environmental science and policy majors and premedical/pre-dental students. Physics 120/121/130 is a three-semester sequence recommended for physics, chemistry, and mathematics majors, and covers mechanics, electricity and magnetism, waves, and optics in more depth than the 110/111 sequence. Because Physics 121 discusses the subject matter more deeply, it is less comprehensive than Physics 111, and should be followed by Physics 130.
- 3. Laboratory Courses.** Physics 110, 111, 120, 121, 127, 130, 131, and 219 offer laboratory experience. Physics 110 and 111 fulfill the physics laboratory requirement for premedical/pre-dental students.

Major requirements

A major in physics can be structured to meet the interests of individual students, including graduate study in physics, related sciences, engineering, and careers in environmental studies, management, government, law, medicine, and teaching. During their first year, prospective physics majors are urged to enroll in Physics 120 and 121 and to consult the undergraduate physics adviser about their program of study. Physics major requirements consist of 14 common core courses and four additional approved courses in physics or related areas. The requirements are flexible and, through consultation with the undergraduate physics adviser, may be modified to satisfy the particular needs and interests of each student. Examples of individual programs include:

General Physics – for students who wish to major in physics as part of liberal-arts education, including preparation for careers in teaching or business.

Preprofessional Physics – courses in physics, chemistry, and mathematics to prepare students for graduate study in physics or research in industry.

Biological Physics – includes chemistry and biology courses that can be used to prepare for medical or dental schools or for careers in the biomedical professions.

Computational Physics – advanced courses in physics, computer science, and mathematics designed to prepare students for graduate study in the rapidly growing area of computational science.

Students interested in using physics as the basis for an engineering career should inquire about the **3/2 Engineering Program** offering students a five-year option that combines a B.A. from Clark and a B.S. in engineering from Columbia University, Washington University (St. Louis), or Worcester Polytechnic Institute.

Courses in the core curriculum include:

1. Introductory Physics:	
Physics 120 and Physics 121 (or 110/111)	2
2. Intermediate-level Physics:	
Physics 130 and 131	2
3. Calculus:	
Mathematics 124, 125, 130, and 131	4
4. Laboratory-based courses:	
Physics 127 or 219	1
5. Upper-level courses:	
Physics 150, 160, 161, and 171	4
6. Senior project:	
Physics 299	1
Total in Core Curriculum	14
Additional approved electives	4
Total In Major Program	18

Students with strong backgrounds in physics and mathematics may replace lower-level required courses with appropriate advanced courses with adviser approval. Advanced placement credits may count toward major requirements. Advanced undergraduates may take graduate-level courses. Majors must meet with the undergraduate physics adviser prior to registration every semester to plan their course of study and to ensure that all requirements for the major are being satisfied. It is possible to complete all requirements for the major within three years, so that it is not essential to begin the study of physics in the first year.

Information about career opportunities and further information about courses and major requirements can be obtained from the undergraduate physics adviser and other physics faculty members.

The Capstone Experience

An independent research project is the appropriate capstone experience for most physics majors. Students are encouraged to “do physics” at the earliest opportunity. Majors must take a capstone course satisfied by one

semester of PHYS 299 Directed Study in Physics, or an approved course of comparable scope. Near the end of the junior year (or earlier) a physics major should choose a topic for his or her senior project with department faculty. Work is conducted under the guidance of a faculty member, often with the assistance of graduate students. These projects often lead to publication in refereed physics journals. Majors with a special interest in research may continue their research by enrolling in additional semesters of PHYS 299.

Honors Program

Students can apply for departmental honors in recognition of meritorious academic achievement and creativity in research. An honors candidate must maintain a minimum overall B- average. All eligible majors are encouraged to participate. Written applications should be submitted to the undergraduate adviser by the end of the junior year. Candidates will conduct a research project under faculty member guidance during the junior and/or senior years. A thesis describing the work must be submitted no later than April 1 of the senior year and be defended orally in a special departmental convocation about two weeks later. Recommendation for honors in physics is made on the basis of the quality of the thesis and student performance in the defense. Students may gain credit for thesis research by registering for Physics 299.

Minor requirements

The requirements for a minor in physics include six courses consisting of PHYS 120/121 (or 110/111), PHYS 130, PHYS 131, and two additional electives approved by the undergraduate physics adviser. Students receiving credit for a scientific perspective course in physics prior to enrolling in PHYS 120 may use it to replace one elective course. Requirements are flexible and the undergraduate physics adviser can replace any of the required core courses for students who are prepared for more advanced training.

Five-year B.A./M.A.

The department offers a M.A. degree in physics to undergraduate physics majors who complete a minimum of four core graduate courses from the following list: PHYS 301, 302, 305, 306, 309, and 310 and who submit an acceptable thesis based on original research. It also is possible to combine the undergraduate physics major with five-year M.A. programs in education and in environmental science and policy. Details are available from the department office.

Graduate Program

The department offers the master of arts and doctor of philosophy degrees in physics. Research is concentrated in experimental and theoretical studies of condensed matter, including magnetic and optical properties of solids, magnetic critical phenomena, superconductivity, granular matter, quantum chaos, supercooled liquids and nucleation, and computer simulations. Other research areas include theoretical plasma physics, interdisciplinary studies of risk assessment and energy technology, nuclear physics, and biomolecules.

The academic requirements are flexible, with emphasis on early student participation in research and informal student evaluation. A distinctive part of each student's course work is a research apprenticeship, PHYS 303, which introduces students to different research groups beginning in the first year of graduate studies.

M.A. degree students must satisfy the general University residence and course requirements, pass four of the core graduate courses (PHYS 301, 302, 305, 306, 309, and 310) and one semester of PHYS 303 with a grade of B- or better, and pass two oral examinations in the subject matter of the core graduate courses. In contrast to M.A. physics programs at many other universities, M.A. candidates also must complete a thesis based on original research.

Ph.D. degree students must fulfill residence and course requirements, pass the core graduate courses (PHYS 301, 302, 305, 306, 309, and

310) with a grade of B or higher, and complete three semesters of PHYS 303. The department does not rely on a formal written qualifying examination to evaluate student readiness for the Ph.D. Instead, students must pass four oral examinations that stress qualitative as well as quantitative aspects of the subject matter of the core graduate courses. Students are required to pass an additional graduate course (approved by the graduate student adviser) in a subject that is outside the area of their dissertation concentration. The course may be in physics, the other sciences, mathematics, computer science, or in another appropriate field. Ph.D. candidates also complete a dissertation based on original research. Students entering with advanced standing and transferable credit are encouraged to demonstrate proficiency in the core graduate courses through oral examinations.

Graduate students in both the M.A. and Ph.D. programs are required to gain supervised teaching experience either as teaching assistants or teaching fellows in the department, or elsewhere if approved by the department.

More information about the requirements for the Ph.D. and M.A. degrees in physics is available from the Graduate Student Handbook. Copies are available upon request from the graduate student adviser.

Further information on the research interests of the faculty and research opportunities for graduate students can be found at the department's Web site, <http://physics.clarku.edu>.

Application forms for admission and financial aid may be requested from the chair of the department. During the academic year, financial support is available in the form of tuition remissions, teaching assistantships, and research assistantships. The department considers the financial support of its graduate students an important responsibility.

Astronomy Courses

Recommended for both nonscience and science majors as general education and to satisfy the scientific perspective requirement of the program in liberal studies. Astronomy is not a formal program or major; students interested in a career in astronomy should major in physics.

001 EXPLORING THE UNIVERSE/LECTURE, OBSERVATORY

Concepts and methods of science for non-science majors. Devoted to the planets, sun, stars, their life cycles, and the galaxies. Involves physics, chemistry, biology, and geology. Explores theories of the composition and origin of the solar system, the universe, and life. Students observe celestial objects including the moon, sun, planets, meteors, stars, nebulae, and galaxies using telescopes in the University observatory. Satisfies the scientific perspective requirement. Mr. Blatt, Mr. Davies/Offered every fall

002 THE PLANETS AND SPACE EXPLORATION/LECTURE, OBSERVATORY

Covers much of the same material as Astronomy 001, but with more emphasis on the solar system and past and future projects for its exploration. Topics include the sun, comets and asteroids, planetary and satellite surfaces, and planetary interiors and atmospheres. The principles of rocket flight and the motion of objects in the solar system are treated qualitatively and with simple algebra. Satisfies the scientific perspective requirement. Mr. Blatt, Mr. Davies/Offered every spring

Physics Courses

020 DISCOVERING PHYSICS/LECTURE, LABORATORY

Emphasizes hands-on experience and the learning of science using approaches similar to ways found effective in teaching children, and paralleling the ways scientists gain new knowledge. Open to all undergraduate, and especially appropriate for students interested in education. No special expertise in mathematics and

science is assumed. Topics include wave and particle phenomena with an emphasis on the properties of light. Two laboratories and group discussions per week. Satisfies the scientific perspective requirement. Mr. Blatt/Offered every year

030 THE NATURE OF LIGHT/LECTURE, LABORATORY

Follows the historical and philosophical development of our understanding of the nature of light leading to current ideas of space, time, mass and energy. Lecture demonstrations, modern versions of classic experiments and readings from original sources will be employed. Topics, treated qualitatively and with simple algebra, include particle theories of light, electromagnetic waves, emission of light from atoms, special relativity and the famous equation " $E = mc^2$ " and its implications. One laboratory every other week. Satisfies the scientific perspective requirement. Mr. Colonna-Romano/Offered every fall

110 INTRODUCTORY PHYSICS – PART I/LECTURE, DISCUSSION, LABORATORY

Introductory level, concept-oriented survey course for science majors and other students. Stresses the simplicity and self-consistency of physical models in explaining a variety of physical phenomena. Topics include Newtonian mechanics and an introduction to the thermal properties of matter. Calculus is not required, but elements of algebra and trigonometry are reviewed and utilized. PHYS 110, with PHYS 111, fulfills the usual entrance requirements for medical and dental schools. Three lectures and one discussion section per week as well as one laboratory every other week. Satisfies the scientific perspective requirement or the formal analysis requirement. Mr. Kudrolli, Mr. Landee/Offered every fall

111 INTRODUCTORY PHYSICS – PART II/LECTURE, DISCUSSION, LABORATORY

A continuation of PHYS 110. Topics include wave motion, electricity, magnetism, and optics. Students who do not intend to take a

second year of physics should enroll in this course instead of PHYS 121. Three lectures and one discussion session per week, as well as one laboratory every other week. The laboratory is designed to fulfill the usual entrance requirements for medical and dental schools. This course satisfies the scientific perspective requirement. Mr. Kudrolli, Mr. Landee/Offered every spring

120 INTRODUCTORY PHYSICS – PART I/LECTURE, DISCUSSION, LABORATORY

Problem-oriented course intended for science majors; coverage is more in-depth than PHYS 110. Topics include Newtonian mechanics and wave motion. Course should be taken with Mathematics 124 so the elements of calculus and its applications to physics can be treated at the same time. Three lectures and one discussion section per week, as well as one laboratory every other week. Corequisite: Mathematics 120 or 124. Satisfies the scientific perspective requirement or the formal analysis requirement. Mr. Agosta, Mr. Kudrolli/Offered every fall

121 INTRODUCTORY PHYSICS – PART II/LECTURE, DISCUSSION, LABORATORY

Continuation of PHYS 120 offering a more in-depth introduction to physics than PHYS 111. The topics of electricity, magnetism, light and optics are discussed. Recommended second semester course for physics, mathematics, and other science majors who intend to continue with PHYS 130. Three lectures and one discussion session per week as well as one laboratory every other week. Credit is not given for both PHYS 111 and 121. Satisfies the scientific perspective requirement. Corequisite: Mathematics 121 or 125. Mr. Agosta, Mr. Kudrolli/Offered every spring

127 COMPUTER SIMULATION LABORATORY/ DISCUSSION, LABORATORY

Introduces methods of computer simulation and its diverse applications. The course is project oriented, with students proceeding at their own pace depending on their background and

interests. Projects include planetary motion, chaotic systems, fractal phenomena, random systems, and thermal systems. Methods include the numerical solution of differential equations and Monte Carlo techniques. The course emphasizes object-oriented programming, and is recommended for prospective science majors as an introduction to programming rather than Computer Science 101. Two laboratory sections and two discussion periods per week.

Satisfies the scientific perspective requirement. Prerequisites: PHYS 120, Mathematics 120 or 124, or instructor permission. No background in computer programming is required.

Mr. Gould/Offered every spring

130 OSCILLATIONS, WAVES, AND OPTICS/ SEMINAR, LABORATORY

The third of a four-semester introductory survey of physics. The seminar meets for three hours per week plus an afternoon laboratory. Oscillations and harmonic motion, wave phenomena such as interference, diffraction, and standing waves, plus ray and wave optics are some of the topics covered. Key experiments include studies of mechanical, acoustic, and optical waves, wave resonance in oscillating systems, construction of optical instruments, and the measurement of the speed of light.

Prepares the student for the study of quantum waves in PHYS 131. Satisfies the scientific perspective requirement. Prerequisites: PHYS 111 or 121; corequisite: Mathematics 130.

Mr. Kudrolli, Mr. Landee/Offered every fall

131 QUANTUM PHYSICS/SEMINAR, LABORATORY

The last in a four-semester survey of physics sequence; intended to follow PHYS 130. After an introduction to relativity theory, the course emphasizes the experimental basis of atomic and nuclear structure leading to the development of wave mechanics. The laboratory uses modern research instrumentation to address contributions by Einstein, Rutherford, Compton, Moseley, Chadwick, and others.

Satisfies the scientific perspective requirement.

Prerequisite: PHYS 130; corequisite Mathematics 131. Mr. Blatt, Mr. Colonna-Romano/Offered every spring

140 ENERGY AND THE ENVIRONMENT/LECTURE, DISCUSSION

Discusses the central role of energy production, distribution, and consumption in human activities, and the range of social, economic, and political impacts that follow. Experiments and data analysis will be conducted using the University campus physical plant as an extended laboratory. Satisfies the scientific-perspective requirement. Mr. Agosta/Offered every year

150 STATISTICAL AND THERMAL PHYSICS/ LECTURE, DISCUSSION

Introduces the concepts of thermodynamics and statistical mechanics with the goal of understanding the behavior of macroscopic systems on the basis of microscopic theory. Topics include probability, entropy and the second law of thermodynamics, the Boltzmann probability distribution, heat and work, and the first and second law efficiencies of simple engines.

Prerequisite: PHYS 130; corequisite: Mathematics 131. Mr. Gould, Ms. Gagne/Offered every fall

160 CLASSICAL MECHANICS/LECTURE, DISCUSSION

PHYS 160 and 161 constitute an introduction to the concepts of classical physics at the intermediate level. Topics include particle and rigid body dynamics in inertial and noninertial reference frames. The necessary mathematical methods are introduced and applied.

Prerequisites: Mathematics 131 and PHYS 111 or 121. Mr. Davies/Offered every fall

161 ELECTRICITY AND MAGNETISM/LECTURE, DISCUSSION

Continuation of PHYS 160. Topics include electro- and magnetostatics and electrodynamics through Maxwell's equations and relativity. Develops useful mathematical methods.

Prerequisite: PHYS 160. Mr. Landee, Mr. Kudrolli/Offered every spring

171 ATOMIC AND NUCLEAR PHYSICS/LECTURE, DISCUSSION

Intermediate-level course providing an introduction to quantum mechanics and its applications to atoms, nuclei, molecules, and solids.

Prerequisites: PHYS 131 and Mathematics 131. Mr. Agosta, Ms. Gagne/Offered every year

201 CLASSICAL DYNAMICS/LECTURE, DISCUSSION

Designed to prepare students for graduate work in physics. Topics include Hamilton's principle, classical scattering theory, rigid body motion, canonical transformations, Hamilton-Jacobi theory, and mathematical methods of physics.

Lectures are the same as PHYS 301, but the assignments and evaluation are separate. Prerequisite: PHYS 160 and 161. Mr. Davies/Offered every fall

202 ELECTRODYNAMICS/LECTURE, DISCUSSION

Designed to prepare students for graduate work in physics. Topics include boundary value problems in electrostatics and magnetostatics, electromagnetic-field equations and special relativity, electromagnetic waves, radiation theory, multipole fields, and mathematical methods of physics. Lectures are the same as PHYS 302, but the assignments and evaluation are separate. Prerequisite: PHYS 161. Mr. Davies/Offered every spring

205 QUANTUM MECHANICS – PART I/LECTURE

PHYS 205 and 206 constitute a comprehensive introduction to the concepts of quantum mechanics and their application in physics and chemistry. Sequence prepares students for graduate work. Lectures are the same as in PHYS 305, but the assignments and evaluation are separate. Prerequisites: PHYS 171 and Mathematics 131. Mr. Davies/Offered every fall

206 QUANTUM MECHANICS – PART II/LECTURE

PHYS 206 is a continuation of PHYS 205. Prerequisite: PHYS 205. Mr. Davies/Offered every spring

209 STATISTICAL MECHANICS/LECTURE, DISCUSSION

Designed to prepare students for graduate work in physics. The lectures are the same as in PHYS 309, but the assignments and evaluation are separate. Prerequisites: PHYS 150 and 171. Mr. Gould, Mr. Phillies/Offered every fall

219 ELECTRONICS LABORATORY/LECTURE, LABORATORY

Examines principles of modern electrical measurement and control. Introduces DC- and AC-circuit theory and use of test instruments such as multimeters and the oscilloscope. Emphasizes electronic circuit design, operational amplifiers, and digital circuits. Two lectures and one laboratory each week. Suitable for intermediate-level undergraduates and graduate students in the sciences. Mr. Agosta/Offered every other fall

290 SENIOR SEMINAR/SEMINAR

This capstone covers a selection of topics of current interest in physics. Offered for variable credit. Staff/Offered periodically

299 DIRECTED STUDIES IN PHYSICS

Independent student work in physics, with the guidance of a faculty adviser. With permission of the instructor, students may enroll for senior capstone or honors projects, directed readings in areas not covered in regular courses, or independent research in theoretical, experimental, or applied physics. Offered for variable credit. PHYS 299 may be taken more than once. Staff/Offered every semester.

301 CLASSICAL DYNAMICS

Graduate-level course in classical mechanics. Topics are similar to PHYS 201, but are treated in greater depth. Mr. Davies/Offered every fall

302 CLASSICAL ELECTRODYNAMICS

Graduate-level course in classical electromagnetism. Topics are similar to PHYS 202, but are treated in greater depth. Mr. Davies/Offered every spring

303 RESEARCH APPRENTICESHIP

Research apprentices participate actively in an experimental or theoretical research group. Ph.D. students enroll in the course for three semesters with a minimum of one semester in a theoretical group and one semester in an experimental group. M.A. students take a minimum of one semester. Staff/Offered every semester

305 QUANTUM MECHANICS – PART I/LECTURE, DISCUSSION

PHYS 305 and 306 offer a comprehensive introduction to quantum mechanics and its application in physics and chemistry. Topics include the foundations of quantum mechanics, symmetries and angular momentum, particle in a central potential, electron spin, and perturbation theory. Mr. Davies/Offered every fall

306 QUANTUM MECHANICS – PART II/LECTURE, DISCUSSION

PHYS 306 is a continuation of PHYS 305. Topics include scattering theory, interaction of radiation with matter, second quantization, applications to simple atoms and molecules, and an introduction to many-body theory. Mr. Davies/Offered every spring

309 STATISTICAL MECHANICS/LECTURE, DISCUSSION

Examines statistical mechanics with applications to physical systems. Topics include ensemble theory, the statistical basis of thermodynamics, quantum statistics, the virial expansion of a classical gas, ideal Bose and Fermi systems, the renormalization group, and fluctuations. Mr. Gould/Offered every fall

310 SOLID STATE PHYSICS/LECTURE, DISCUSSION

Examines experimental properties and the quantum theory of solids. Topics include crystal and reciprocal lattice structures, the free electron theory of metals, electronic band structure and the Fermi surface, lattice vibrations, and the elementary excitations of solids. Prerequisite: PHYS 305 or permission of instructor. Mr. Landee/Offered every spring

319 ADVANCED ELECTRONICS LABORATORY/LECTURE, LABORATORY

Similar to PHYS 219, but more advanced. Topics are treated in greater depth. Suitable for graduate students in the sciences. Mr. Agosta/Offered every fall

320 ADVANCED SEMINAR IN PHYSICS

Provides for special coverage of topics in physics of current research interest. Offered for variable credit. Staff/Offered periodically

325 RESEARCH SEMINAR

Student participation seminar on current research problems. Offered for variable credit. Staff/Offered periodically

327 ADVANCED COMPUTER SIMULATION LABORATORY

Similar to PHYS 127 but more advanced. Suitable for graduate students in the sciences or undergraduates who have completed PHYS 127. Prerequisite: PHYS 127 or instructor permission. Mr. Gould/Offered every spring

390 COLLOQUIUM

Weekly invited lecturers speak on current research topics. Required for all graduate students and recommended for undergraduates involved in research. Not offered for credit. Staff/Offered every semester

397 RESEARCH

Thesis and dissertation preparation. Offered for variable credit. Staff/Offered every semester

PSYCHOLOGY

Program Faculty

Jaan Valsiner, Ph.D., *chair: cultural psychology, history of ideas*

Michael E. Addis, Ph.D.: *psychology of masculinity, help-seeking behavior, lay theories of treatment and psychopathology*

Michael Bamberg, Ph.D.: *narratives, discourse analysis, gender and identity, emotion talk, language acquisition*

Nancy Budwig, Ph.D.: *language development, socialization, discursive psychology*

Esteban Cardemil, Ph.D.: *minority mental health, prevention and treatment, depression*

James V. Cordova, Ph.D.: *couples' relationship health and deterioration; couples' therapy research; intimacy, acceptance, depression, and motivating the adoption of relationship healthy practice; the Marriage/Relationship Checkup and Couples Therapy for Depression*

Joseph de Rivera, Ph.D.: *the structure and function of different emotions; the relationships between emotion and action; the social psychology of nonviolent action for peace and justice*

Rachel Joffe Falmagne, Ph.D.: *thought in societal context, gender, thought and society, critical perspectives on knowledge construction*

Wendy S. Grolnick, Ph.D.: *motivation and development, self-regulation of emotion and behavior in infancy and early childhood, parent and teacher influences on children's motivation and adjustment, child clinical psychology*

James D. Laird, Ph.D., *emotional experience, self-perception, attributions to others, structures of person awareness, world hypotheses as personality variables*

James P. McHale, Ph.D.: *family theory and measurement, community psychology and prevention*

Elaine Reese, Ph.D.: *autobiographical memory development, narrative, literacy*

David A. Stevens, Ph.D.: *taste and smell, psychophysics, research methods and analyses*

Nicholas S. Thompson, Ph.D.: *evolutionary psychology*

Penelope Vinden, Ph.D.: *children's understanding of mind and its sociocultural context, especially parenting and language*

Marianne Wiser, Ph.D.: *cognitive development, especially concept acquisition, science teaching and learning, and symbolism*

Affiliate Assistant Professor

Eydie Kasendorf, Ph.D.

Other Faculty

Robert W. Baker, Ph.D.

Roger Bibace, Ph.D.

Bernard Kaplan, Ph.D.

Seymour Wapner, Ph.D.

Morton Wiener, Ph.D.

Adjunct Faculty

Sharon Griffin, Ph.D.

Linda Kennedy, Ph.D.

Part-time Faculty

Robert A. Ciotton, Ph.D.

Michael Cirillo

Cathleen Crider, Ph.D.

Jonathan Demick, Ph.D.

Robert J. O'Connell, Ph.D.

Marlene Oscar-Berman, Ph.D.

Lawrence Peterson, Ph.D.

Research Associates

Barbara Dowds, Ph.D.

Frances L. Hiatt School of Psychology

The Frances L. Hiatt School of Psychology, formed in 1987, has a major endowment provided through the generous support of the Hiatt family. The school, which encompasses the Department of Psychology with the Heinz Werner Institute for Developmental Analysis and the Department of Education, provides, in addition to Frances L. Hiatt Graduate Fellowships, opportunities for organizing and attending conferences and support for travel and research activities for the school's faculty and students.

The Heinz Werner Institute for Developmental Analysis

Associated with the department is the Heinz Werner Institute for Developmental Analysis, which has three aims: to integrate various research programs dealing with developmental problems; to attract scholars, teachers, and research workers from disciplines for which developmental problems are pertinent, such as anthropology, biology, and certain areas of medicine; and to train research workers on postdoctoral levels in the comparative-developmental approach to behavior. For more information, write to Dr. Seymour Wapner, chair of the institute's executive committee.

Undergraduate Program

The department provides educational experiences that both contribute to liberal-arts education and prepare students for graduate work in psychology or related disciplines. The program emphasizes the role of psychological scholarship in understanding human behavior and experience. The program culminates in small and intensive capstone courses that offer students an opportunity to participate fully in the theoretical and research life of the department.

Introductory Courses in Psychology

The six introductory courses provide a foundation in the content and method of psychology and should normally be completed by the end of the sophomore year.

The introductory courses include 101 General Psychology, two methods courses, 105 Quantitative Methods and 107 Approaches to Psychological Research, and at least one course from EACH of three broad content areas of psychology. These are:

Basic Processes (BP): Courses in evolutionary psychology, physiological psychology, learning, sensation, and perception and cognition.

Choose from:

- 120 Human Cognition
- 130 Psychology of Learning
- 135 Paradox of Animal Sociality
- 136 Animal Instinct, Animal Mind
- 140 Biology of the Brain
- 141 Brain and Behavior
- 142 Sensation and Perception
- 145 Psychophysiology

Development (DEV): Courses in historical, cultural, and human developmental psychology. Choose from:

- 150 Development in Child and Adolescent
- 156 Cultural Psychology
- 157 Cultural Psychology of Urban Living
- 158 Self, Discourse, and Construction

Social/Personality (S/P): Courses in social, clinical, personality, and abnormal psychology. Choose from:

- 170 Social Psychology
- 172 Psychology of Personality
- 173 Introduction to Abnormal Psychology
- 175 Introduction to Clinical Psychology
- 176 Introduction to Peace Studies

Declaring a Psychology Major and Related Field

A student nearing the end of his or her sequence of introductory courses should come to the department office to declare a major and be assigned a psychology adviser. This formality will normally occur by the spring of a student's sophomore year. When declaring a major, a student must also choose a related field. The related field requirement reflects the conviction of the faculty that all academic areas are usefully related to psychology, and that understanding the relation between psychology and another discipline requires knowing that other discipline in considerable depth. A related field is generally a recognized six-course concentration or minor. Alternatively, a student may adopt as a related field any pattern of six courses that his or her psychology adviser has approved as providing depth of knowledge in a discipline related to psychology.

Mid-level Courses

In addition to the above six introductory courses, majors must take two mid-level courses that provide experience with the two fundamental activities of academic psychology, the conduct of psychological investigations and the analysis and interpretation of psychological literatures. Students complete at least one each of the following types of mid-level courses by the end of the junior year.

First Seminars focus on the attentive analysis of psychological texts, the articulation of opinions concerning psychological issues, and the use of library and reference skills in psychological writing. (Permission to take a capstone seminar as a first seminar will not ordinarily be given and must, in any case, be obtained in writing in advance from the faculty member involved.) Choose one from numbers 240-259.

Laboratories focus on doing psychological research including planning, data collection, analysis, interpretation, and presentation. (Choose from numbers 200-214.) The laboratory requirement may be fulfilled by taking a research course.

Research courses are opportunities to participate in faculty and/or graduate student research projects, in all stages of the research process from conceptualization to presentation. The work normally terminates in an Academic Spree Day presentation and/or co-authorship of a scholarly paper or conference presentation. Students desiring to join a research course should make arrangements with a faculty sponsor well in advance. In approaching faculty members to make these arrangements, students should bear in mind that research courses are taken on as an addition to a faculty member's normal teaching load and that space in them is limited. Choose from numbers 215-235. In rare instances, this requirement may be met by research experience done for credit in another department. In such cases, PSYC 101, 105, and 107 must have been completed, and the proposed project approved before course registration and after course completion.

Capstone Courses

Capstone courses provide an opportunity for students to participate more intensively in the analysis of a psychological literature or the pursuit of empirical research in psychology. Thus, the capstone requirement may be fulfilled by taking one of two kinds of courses.

Capstone seminars are open to undergraduates and are taught at or near the graduate level. (Permission to take a second lower-level seminar as a capstone will not ordinarily be given and must, in any case, be obtained in advance in writing from the faculty member involved.) Choose from numbers 260-297.

Capstone Research. Students fulfilling the capstone requirement with a research course should notify the faculty member when they seek permission for the course. Capstone research students should expect to write a substantial research report describing the theory, methods, statistical method, results, and conclusions of the project they conducted.

The Honors Program

Honors work in psychology is available to seniors who have demonstrated high scholastic achievement and the ability to work independently in scholarly situations. Students petition the department faculty for admission to the honors program with the support of a faculty sponsor and a description of a proposed research project. This research provides a basis for a thesis which, upon completion, is presented and defended by the student before an examining committee of faculty. Level of honors is determined by the full department on the basis of recommendations from its examining committees. Students interested in departmental honors in psychology should make arrangements with a faculty sponsor during the second semester of their junior year or earlier, enroll in PSYC 297 for the two semesters of their senior year, and be formally admitted to the program no later than the beginning of their senior year.

Doctoral Program

General Requirements

Only those students who plan to enroll in the Ph.D. program on a full-time basis are admitted for graduate work. The aim of the program is to provide students with a general integrated background covering the various areas of psychology. Specialization in several areas of study is available. Although a small department cannot reflect the entire spectrum of perspectives toward the study of psychology, a considerable number of theoretical orientations are demonstrated by the faculty. Important emphasis is placed on theoretically grounded inquiry and conceptually and methodologically rigorous research. In all programs, including the clinical program, there is a deep concern with conceptual analysis and theoretically grounded and directed inquiry. Unique is the diversity of methods of investigation used by faculty and graduate students in their work and the range of problems taken to fall within the purview of psychologists. Students are acquainted not only with traditional experimental and naturalistic methods, but also with phenomenological, structural, hermeneutic, and other methodologies. Participation in research is strongly encouraged, the nature being determined by interests a student shares with faculty members. Students are expected to contribute significantly to problem formulation, conceptualization, methodology, analysis, and write-up of research work.

Advisers

A faculty adviser will be assigned to help each student plan a curriculum to best meet individual needs and goals. The adviser may change or waive any of the requirements of specific training programs with department approval, but ordinarily the adviser's function is to assist students in selecting a curriculum from within the normal requirements. In addition to course selection, the adviser will work with the student to develop a portfolio of scholarly and professional accomplishments.

Course work

Students ordinarily are expected to take four courses in each semester for their first two years, including PSYC 301 Problem, Theory, and Method in Psychology and PSYC 302 Statistical Methods in their first year. In subsequent years, students continue to enroll in a full program which ordinarily includes three or four content courses and research and reading courses. A total of at least 16 one-semester content courses is required for admission to candidacy for the Ph.D. There are special course distribution requirements in effect for clinical students, and clinical applicants should consult the section on Training in Clinical Psychology for information about course requirements. Content courses include: all graduate seminars; clinical methods courses; Statistical Methods; Problem, Theory, Method; and courses numbered 300-379 and 390-399 (Topics are similar to capstone seminars but are treated in greater depth). Up to four directed reading courses may be taken as content courses after the second year and with the supervising faculty member's approval.

Research in the First Year

To encourage each student to become actively involved in research from the beginning of graduate training, a research apprenticeship program exists through which faculty and students can voluntarily begin working on research together during the first year. Participating faculty provide a brief description of current research projects in which students can become involved or notify students about when their project meetings are held. During the first two weeks of each year students have the opportunity to consider these projects and contact a faculty member to discuss becoming an apprentice in the described research project.

Qualifying Projects

In order to advance to candidacy for the doctoral degree, students must complete six elements of a qualifying portfolio by the end of their third year in the program. Students are expected to complete two elements per year to

stay on track towards completion of the portfolio. Elements may be papers written under the supervision of a faculty member, manuscripts submitted for publication, conference presentations, or grant proposals. Students are expected to form a portfolio committee of three faculty members by the end of their first semester, with the primary research adviser serving as chair. The committee oversees and approves elements of the portfolio. The student is responsible for maintaining steady progress of the portfolio and for meeting stated deadlines. Written feedback regarding progress on the portfolio will be provided bidirectionally each year by the student and the primary research adviser.

Examination in Statistical Methods

Students are required to demonstrate competence in statistical methods by satisfactory performance on an examination in that area. The examination is normally taken in two parts during the student's first year, at the completion of each semester of the course in PSYC 302 Statistical Methods.

M.A. Degree

The M.A. degree is awarded after satisfactory completion of at least eight one-semester courses or their equivalent; and the execution of an empirical thesis under the supervision of a faculty member. All first- and second-year students will present their empirical work at a departmental conference in May. In addition, a write-up in the form of a journal article is required for award of the degree. Students who have not completed their M.A. degree at the end of the second year are not permitted to enroll in courses in the spring semester of the third year. Instead, their status becomes special resident, which means they must register for directed readings for at least three units to be in residence while working on the M.A. requirements. Students who do not complete the M.A. degree by the end of the third year ordinarily are not permitted to continue in the Ph.D. program, but are given ample opportunity to complete a master's degree.

Ph.D. Dissertation Proposal Defense

Once in final form, the dissertation proposal will be presented and defended by the candidate in a meeting with the three faculty on the dissertation committee. This defense, which is based on questions and discussions (no presentation of the proposal) is intended to demonstrate the candidate's command of the relevant base and of the rationale of the proposed study, and the candidate is expected to be able to substantiate theoretical and procedural aspects of the research. It is expected that the proposal presented will be satisfactory in substance in most cases, since it will normally be developed in consultation with members of the candidate's dissertation committee.

Ph.D. Dissertation

Students demonstrate the ability to conduct research by the presentation of an acceptable dissertation. The topic of the dissertation usually is selected by the student working with one or more members of the faculty. Once students have worked out a general research plan, a dissertation committee is formed to supervise and assist in all phases of the research effort, from articulation of the research design to the write-up of the final draft. After completion of the research, students submit a draft of the dissertation to the committee, which will aid students in making necessary revisions. At the point that the committee decides that the dissertation is complete and ready for presentation, the oral examination is scheduled.

Ph.D. Oral Examination

Following submission of the dissertation, a final two-hour oral examination is held in which students present and defend their dissertation. The dissertation will be presented publicly to the psychology faculty and graduate students (and guests where appropriate), and open to questions from the faculty. The format is similar to that of a professional presentation (job talk or colloquium). The candidate is expected to demonstrate his/her ability to address questions on the theoretical frame, the substantive questions, and the findings of his/her work and

on related matters, both from experts in their immediate area and from broadly informed members of the audience. The dissertation oral will include the committee and an additional two or three faculty members appointed by the department chair. The selected readers must be specialists in the field (at the level of Ph.D. or its equivalents), including affiliated, adjunct faculty, visiting and postdoctoral scholars, aside from full-time faculty. In case of expertise needed, committee members may be invited from other universities to participate in the final oral examination. Optimally, all faculty with generally related interest and knowledge will attend. The oral will be chaired by the department chair or designee. The Ph.D. must be completed in six years (excluding an internship year or official leave). An additional year may be granted by faculty approval of a petition on other grounds, such as part-time study because of financial necessity.

Graduate Training in Clinical Psychology

The basic philosophy in the training of clinical psychology students, as for all graduate students in the department, is that specialization, necessary as it is, is a process of individualization and emphasis rather than one of restriction, isolation, and compartmentalization. Our aim is to provide an integrated series of intensive educational experiences in class, laboratory, and in practicum clinical settings (in the University and in other agencies) in which specialist training in clinical psychology is attained along with increasing competence in general psychology, theory, and research. It is our hope that these aims and training procedures will equip our graduates to deal with special problems in clinical psychology from the vantage point of knowledge about contents and methods of other areas of psychology. It is assumed that this perspective will develop inquiry-oriented psychologists with creative-integrative approaches to clinical problems and their relationship to psychological knowledge. We believe that such broadly trained psychologists can be flexible enough to (1) meet the varied demands within the different settings in

which the clinical psychologist currently functions; and (2) innovate conceptual approaches and methods of clinical psychology. All members of our clinical faculty, full- and part-time, have clinical activity as part of their own day-to-day functioning, in addition to their research.

The clinical-training program includes course work and practice with adults and children. In addition to more traditional training, the program offers opportunities in child clinical and marital-and-family intervention.

The program for the Ph.D. in clinical psychology has, in addition to the general requirements, the following special requirements. Each student must take at least one course from each of three areas: (1) biological aspects of behavior (e.g., physiological psychology, behavior and evolution, human neuropsychology); (2) cognitive-affective aspects of behavior (e.g., symbolism, cognitive development, logical reasoning, action and emotion); and (3) social aspects of behavior (e.g., interpersonal relations, social cognition). Each student must take Psychopathology, Theories of Psychotherapies, and Historical Backgrounds of Contemporary Psychology. Each student must complete a minimum of one year of internship in clinical settings. All clinical students participate for four years in practicum training offered at the University or other agencies. For further information contact the director of clinical training. The clinical-psychology program is currently accredited by the American Psychological Association (APA). For more information, the APA Committee on Accreditation can be contacted at 750 First Avenue, N.E., Washington, D.C. 20002-4242, (202) 336-5500, (202) 336-6123 TDD.

Graduate Study in Developmental Psychology

The developmental psychology curriculum is intended to prepare students for a career in research, teaching, and scholarly activity. It strives to impart both theoretical sophistication and competence in observational, experi-

mental, interpretative, and comparative inquiry with regard to developmental issues. Emphasized are ways of representing and examining all life phenomena, rather than focusing exclusively on a particular population (e.g., infants, children, adults) or a specific subject matter. In-depth study is offered with particular populations and in specific areas bridging social, cognitive, and language development. In addition to requirements common to all graduate students, those with a concentration in developmental psychology are required to enroll for two semesters in PSYC 300 Developmental Psychology Forum and take a series of six developmental seminars. Since there are no sharp separations between different areas within the department, students who work primarily in developmental psychology have the opportunity to study with other faculty in the department who have an interest in their area of specialization.

Distinctive features of the program include a strong interest in theoretical perspectives, concern with the relationship between problems and methods of inquiry, and an attempt to place questions in their historical and cross-disciplinary contexts. Faculty interests intersect around topics in the development of psychological processes in societal and cultural context, specifically in the development of conceptualization and reasoning, in the study of social relations and interpersonal interactions, in the development of languages, symbolization, and communication, and in the study of the relation of environmental conditions to functioning.

Research facilities in the department include a child-study area. There are opportunities for research in the schools and in other community settings. The Goddard Library has an extensive collection of books and journals going back to the inception of graduate study in psychology in the United States. Computer facilities are available on campus and in the department. For additional information about study in developmental psychology, write to Dr. Nancy Budwig (nbudwig@clarku.edu).

Graduate Study in Social-Personality Psychology

This program is organized around two foci: emotional processes, and societal peace and conflict. Research on emotional processes includes studies on the relation between body, behavior and emotional experience, the relationship between emotional experience, semiotics and social action, and examinations of emotional development, evolution and management. Research on peace and conflict includes work on intergroup conflict, nonviolent action, and the relationship between collective emotions and cultures of peace. It is facilitated by links with faculty from other disciplines in the University's peace studies program.

The program is ideal for graduate students who are committed to tailoring a program of study in emotional processes, or peace and conflict, or evolutionary or health psychology. Its flexibility (there are only three required courses) enables students to build a program that takes advantage of faculty with varied perspectives (behavioristic, cultural, evolutionary, phenomenological, psychodynamic) who respect one another and collaborate on research. This flexibility is manifested in networks of collaboration that link professors and graduate students by particular scholarly interests. Currently, groups of faculty and graduate students are meeting around the themes of aggression, attachment theory, assessment of cultures of peace, and health psychology.

For further information, contact Dr. Joseph de Rivera at jderivera@clarku.edu.

Graduate Study in Other Areas

Other current interests of the faculty include feminist cognition, cognition and instruction, evolutionary psychology, and the psychophysics of taste and smell. Teaching and research emphasize theoretical relevance and preserving and exploring the connections among areas of specialization. Faculty and students typically maintain extensive and regular interactions. In particular, most of the faculty have close connections with the developmental and social-personality areas. The Depart-

ment also has education research ties with a number of institutions in the Worcester-Boston area (e.g., the Neuropsychology Unit of the Boston Veterans Administration Hospital, the Worcester Foundation for Experimental Biology, the University of Massachusetts Medical School), as well as other departments at Clark. For further information, write to the chair of the department.

Postdoctoral Opportunities

The Psychology Department is in the process of establishing a postdoctoral program in all areas where it currently offers doctoral degrees. International postdoctoral visitors have been the core of the present program, and federally funded postdoctoral positions for U.S. citizens are expected to be established in the near future.

Courses

101 GENERAL PSYCHOLOGY/LECTURE, DISCUSSION

Introduction to the principles of human behavior. No prerequisite. Unless otherwise noted, this course is a prerequisite to all other psychology offerings. Discussion attendance required. Mr. Laird, Mr. McHale/Offered every semester

105 QUANTITATIVE METHODS/LECTURE

Introduction to descriptive and inferential statistics for the social sciences. Prerequisite: PSYC 101. Ms. Vinden, Mr. Laird/Offered every semester

107 APPROACHES TO PSYCHOLOGICAL RESEARCH/LECTURE, DISCUSSION

Focuses on the role of research in psychological thought and theoretical development, research methods, and the principles of experimental design. Covers the range of methods used by psychologists, including qualitative analyses (participant observation and discourse analysis) as well as the traditional experimental methods. This course is a prerequisite for all laboratory or research courses, unless otherwise noted. Prerequisite: PSYC 105. Mr. Bamberg, Mr. Stevens/Offered every semester

120 INTRODUCTION TO COGNITION/LECTURE, DISCUSSION

Provides an overview of some of the cognitive functions that comprise our mental life as we function in the world, such as thinking, concepts, memory, attention, language, problem solving and decision making. The course examines the mental processes that underlie these functions as they have been studied from the perspective of cognitive psychology, and emphasizes how those aspects of thought are interconnected. The assumptions underlying the perspective of cognitive psychology are discussed and the extensions and contributions of that approach to sociocultural, clinical and developmental questions are explored. Ms. Joffe Falmagne/Offered every year

130 PSYCHOLOGY OF LEARNING/LECTURE

Focuses on historical and current issues in the psychology of learning. Topics include classical and operant learning, the role of language and cognition, and continuity and discontinuity in human and nonhuman species. Mr. Addis, Mr. Stevens/Offered periodically

135 THE PARADOX OF ANIMAL SOCIALITY/LECTURE, DISCUSSION

Evaluates a new evolutionary perspective called sociobiology by examining Darwinian theory as it applies to animal-social organizations. The course redefines such concepts as natural selection, adaptation, communication, personality, emotions, grouping, and territoriality as they apply to animal behavior. This course is run with much class discussion and emphasis on questioning theories, constructing new models, and arriving at new, clearer definitions. Prerequisite: Introductory biology or psychology normally required, but open to freshmen with special qualifications; see instructor. Mr. Thompson/Offered every year

136 HUMAN INSTINCT, ANIMAL MIND/LECTURE, DISCUSSION

Explores the relation between animal and human psychology, first looking at humans as animals, then exploring human-like qualities, such as mind or emotions, as they occur in animals. Mr. Thompson/Offered every year

140 BIOLOGY OF THE BRAIN/LECTURE, DISCUSSION

An introduction to the organization and function of the nervous system. Lectures focus on the human brain with reference to knowledge obtained from animal models. Includes basic information about the anatomical, physiological, and chemical properties of the brain and how these properties enable us to perceive and move around in the environment. Laboratory/discussion sessions include demonstrations of nerve-cell signalling, testing of human reflexes and sensory perception, dissections, and discussion of issues that arise in modern neuroscience: understanding the relation between the mind and the brain. Prerequisite: Biology 101 or permission. Ms. Kennedy/Offered every year

141 BRAIN AND BEHAVIOR/LECTURE, DISCUSSION, LABORATORY

An exploration of how specific neural systems are involved in various behaviors. Emphasizes first, systems where the relationships between brain and behavior are best understood, such as perception, motivation, mood, emotion, sleep and consciousness, language, and attention. Second, information from the frontiers of neuroscience about how the biology of the brain changes as the result of experiences of the individual, including mechanisms for learning and memory, is discussed. Laboratory consists of original research, as a group, on an unsolved problem in modern neuroscience. Prerequisite: Biology/Psychology 140. Ms. Kennedy/Offered every year

142 SENSATION AND PERCEPTION/LECTURE

Sensation, perception, and cognition work together to give us meaningful information about the world. This course examines how information is picked up from the environment and then coded, transformed, and integrated by the sensory systems, with special emphasis on vision. Topics include basic visual and auditory functions, vision abnormalities and deafness, color perception, visual illusions, pain, and how babies perceive the world. Ms. Wiser/Offered every year

145 PSYCHOPHYSIOLOGY/LECTURE

Deals with how the activities of the body outside of the central nervous system interact with, reflect, or produce psychological states and processes. Topics will include the functioning of the autonomic nervous system; techniques for measuring autonomic and other bodily activities; the role of bodily activities in emotions and other feelings; lie detection; the impact of stress on autonomic functioning and on immune system function; the effects of meditation, exercise, and biofeedback on physiology and experience. Mr. Laird/Offered every year

150 DEVELOPMENT IN CHILD AND ADOLESCENT/LECTURE

Discusses the development of cognitive and social functioning in the child and adolescent. Emphasizes and contrasts theoretical approaches to conceptualizing changes in developing children in light of current studies. Mr. Bamberg, Ms. Budwig, Ms. Reese/Offered every year

156 CULTURAL PSYCHOLOGY/LECTURE, DISCUSSION

Provides a systematic overview of knowledge about cultural organization of human psychological functions, and how psychology as a research discipline can study these functions. Strong theoretical and methodological orientation is included. Mr. Valsiner/Offered every year

157 CULTURAL PSYCHOLOGY OF URBAN LIVING/LECTURE, DISCUSSION

The focus is to provide the students with skills of observational research in culturally structured open spaces (urban settings). Research tasks will be set up for the students in different cultural contexts in the local environment. The students will carry out an observational and a naturalistic-experimental study, and write up a research report. A comparative-perspective course. Mr. Valsiner and Staff/Offered periodically

158 DISCOURSE, SUBJECTIVITY, AND SELF/LECTURE, DISCUSSION

Provides a multiple perspective approach to subjectivity and the self: biological, cognitive-experimentalist, experiential, social constructionist, and psychodynamic. Examines the role of discourse in how the self is constructed with special emphasis on developmental aspects. Mr. Bamberg/Offered periodically

170 SOCIAL PSYCHOLOGY/LECTURE, DISCUSSION

Examines love, fear, conflict, and other basic processes involved in group dynamics, interpersonal relations, community psychology, intergroup relations, organizational behavior, and the interface between human nature and culture. These basic processes are related to the attempt to achieve a world of peace and justice. In addition to quizzes and a final exam, students are asked to apply their knowledge of basic processes in a personal or political action. Prerequisite: PSYC 101 or instructor's permission. Mr. de Rivera/Offered every year

172 PSYCHOLOGY OF PERSONALITY/LECTURE

Considers theories regarding behavioral differences among persons in response to the same or similar situations; includes typological, trait, psychoanalytic, traditional and neo-behavioristic, and personological conceptions. Staff/Offered every year

173 INTRODUCTION TO ABNORMAL PSYCHOLOGY/LECTURE

Discusses the manner in which abnormal behavior has been traditionally defined and the implications of these definitions. Provides a comprehensive overview of the major categories of abnormal behavioral disorders with an emphasis on theory and research (e.g., schizophrenia, affective disorders, substance abuse, eating disorders, etc.). Special attention is paid to issues of assessment, intervention, legal issues, and prevention. Prerequisite: PSYC 172. Ms. Grolnick, Mr. McHale/Offered every year

175 INTRODUCTION TO CLINICAL PSYCHOLOGY/LECTURE, DISCUSSION

Surveys various approaches to clinical assessment and intervention. Emphasizes the assumptions underlying alternative approaches,

and the actual activities of clinical psychologists. This course also covers special topics including ethics, health psychology, clinical neuropsychology, and forensic psychology. Mr. Addis/Offered periodically

176 INTRODUCTION TO PEACE STUDIES/LECTURE

See Peace Studies 101. Mr. DeRivera/Offered every year

193 DISCOURSE, SELF AND GENDER/FIRST-YEAR SEMINAR

This seminar attempts to explore through the lens of discourse how people make sense of themselves as 'gendered beings,' with a focus on the construction of 'masculinity.' Since this course carries the language and culture perspective, it is expected that students will acquire the basic grammatical and syntactic categories necessary for in-depth analyses of language in use. Students will be expected to commit themselves to a high-level academic atmosphere and to a challenging workload that will result in stimulating class discussions. Fulfills the language and culture perspective requirement. Mr. Bamberg/Offered periodically

195 PURSUIT OF AN INQUIRY/FIRST-YEAR SEMINAR

Designed primarily for incoming students, this course provides an opportunity to pursue independent scholarship in chosen fields. Students must write a substantial term paper by the end of the semester. Class meetings are used to clarify the exposition of ideas and to train the participants in how to exploit the resources of the community for independent scholarship. Papers may be written on any topic. PSYC 101 is not a prerequisite. Instructor's permission. Staff/Offered periodically

196 PSYCHOLOGY THROUGH HISTORY/FIRST-YEAR SEMINAR

This seminar for first-year undergraduates will help students get a head start for a future in psychology from an interdisciplinary focus. This course entails the investigation and discussion of great literary and philosophical works that have a profound influence on today's academic psychology. Students will

learn the contextual relevance that surrounds the past and present. Students will also learn to efficiently and rigorously investigate and report on texts significant to psychology.

Staff/Offered in the fall

201 LABORATORY IN SOCIAL PSYCHOLOGY/LABORATORY, DISCUSSION

General principles of experimental design are learned through the design and performance of original experiments in experimental social psychology. Both group and individual experiments are conducted in any of the usual topic areas of social psychology. Prerequisites: PSYC 105, 107, 170. Staff/Offered periodically

202 LABORATORY IN DEVELOPMENTAL PSYCHOLOGY/LABORATORY, DISCUSSION

A general introduction to conceptual issues related to research in the area of human development. Students participate in group research projects involving observational and experimental techniques and receive training in all phases of research, including formulating research questions, data collection and analysis, and report writing. Prerequisites: PSYC 105, 107, and 150. Ms. Budwig, Ms. Reese/Offered every year

203 LABORATORY IN THINKING PROCESSES/LABORATORY, DISCUSSION

Introduces students to the how-to of doing research on reasoning, using both experimental and qualitative, interview-based methods. Students conduct studies on such questions as: What role do prior knowledge, prior beliefs, and logic play in reasoning? How do people reason about the causes of everyday events? How do people draw conclusions from given information? There will be flexibility for students to engage more deeply in content areas of particular interest to them. Prerequisites: PSYC 105, 107, and 120. (PSYC 120 can be taken the same semester as the lab.) Ms. Falmagne/ Offered periodically

204 LABORATORY IN EMOTION AND MOTIVATION/LABORATORY, DISCUSSION

A study is designed to examine how individual or collective emotions influence behavior.

Data are gathered, analyzed and reported.

Prerequisites: PSYC 105, 107, and instructor's permission. Mr. deRivera/Offered every other year

205 LABORATORY IN TASTE AND SMELL/LABORATORY, DISCUSSION

Discusses concepts of experimental design and method. Experiments are conducted on the scaling of taste, smell, and flavor, such as the comparison of the sweetness and pleasantness of different sugars. Prerequisites: PSYC 105, 107, and instructor's permission. Mr. Stevens/Offered periodically

206 LABORATORY IN PERSONALITY/LABORATORY, DISCUSSION

Examines issues and problems in psychological research in personality, with the problems being exemplified in class and individual studies. Research may be in conventional areas of personality research, such as perceptual defense, motives and performance, self-perception, experimenter influence, and emotions. Prerequisites: PSYC 105, 107, 172. Staff/Offered every year

211 LABORATORY IN COMMUNITY PSYCHOLOGY/LABORATORY, DISCUSSION

Concerned with the prevention of mental-health problems and enhancement of individual functioning through the strengthening and empowerment of communities. Weekly lectures introduce essential principles and methods; in weekly laboratory settings, students design, conduct, and evaluate their own community research projects. Designed for students already actively engaged in neighborhood or community-based initiatives. Prerequisites: PSYC 105, 107, 172, and instructor's permission. Mr. McHale/Offered periodically

212 LABORATORY IN GENERAL PSYCHOLOGY/LABORATORY, DISCUSSION

Students develop skills investigating various aspects of human behavior and experience. Prerequisites: PSYC 105, 107. Staff/Offered periodically

213 LABORATORY IN FAMILY PROCESSES/ LABORATORY, DISCUSSION

Examines family-based correlates of early socioemotional development. Both self-report and observational methodology are used to assess individual, dyadic, and whole family functioning. Topics vary, but may include studies of dyadic and family play; intimate relationships among married couples; family-based correlates of children's school adjustment; and other topics. Prerequisites: PSYC 105, 107, 172, and instructor's permission. Mr. McHale/Offered periodically

214 LABORATORY IN INTERVIEWING/LABORATORY, DISCUSSION

Enables students to use interviews as a research tool productively and responsibly, with emphasis on structured, focus group, and unstructured (qualitative) interviews. The different approaches and techniques will be explored theoretically and with practical exercises. A valuable research prerequisite for doing honors work in the social sciences. Prerequisite: PSYC 107 or instructor's permission. Mr. Bamberg/Offered periodically

215 RESEARCH IN EMOTION/LABORATORY, DISCUSSION

Working in close collaboration with the instructor, students design, conduct, and present a piece of research that investigates an emotional or motivational phenomenon. Instructor's permission. Mr. deRivera/Offered periodically

216 RESEARCH IN HEALTH PSYCHOLOGY/LABORATORY, DISCUSSION

Research in the area of health psychology addresses any issues related to health and disease in individuals and groups; analyses of doctor/patient relationships and particular diseases (acute and chronic) or interest to a student. Faculty members in the area of health psychology are also associated with the Department of Family Medicine and Community Health at UMass Medical School and the Department of Obstetrics and Gynecology at the New England Medical Center in Boston. Prerequisite: instructor's permission. Mr. Bibace/Offered periodically

217 RESEARCH IN THE DEVELOPMENT OF MEMORY AND LITERACY/LABORATORY, DISCUSSION

Students participate in ongoing research projects on the development of autobiographical memory and literacy, particularly as these skills develop in social interaction with others. Prerequisites: PSYC 150 and instructor's permission. Ms. Reese/Offered periodically

218 RESEARCH IN FAMILY DYNAMICS/ LABORATORY, DISCUSSION

Students participate in the design, conduct, and interpretation of experiments in an ongoing research program in family dynamics and child development. Instructor's permission required. Mr. McHale/Offered every year

219 RESEARCH ON MIND IN CONTEXT/ LABORATORY, DISCUSSION

Explores the relationship between children's developing understanding of mind, parenting style, and language development. Students join the professor in an ongoing research project. Prerequisite: PSYC 107 and instructor's permission. Ms. Vinden/Offered every year

220 RESEARCH IN CHEMORECEPTION/ LABORATORY, DISCUSSION

With the instructor, students design, conduct, and interpret research in taste, smell, and flavor. Instructor's permission. Mr. Stevens/Offered every year

221 RESEARCH IN SOCIAL PSYCHOLOGY/ LABORATORY, DISCUSSION

Students participate in the design, execution, analysis, and interpretation of research on self-awareness and self-knowledge, including areas of emotions, attitudes, and abilities. Prerequisites: PSYC 105, 107, 170, and instructor's permission. Mr. Laird/Offered every year

222 RESEARCH IN COGNITIVE DEVELOPMENT/ LABORATORY, DISCUSSION

Students participate in an ongoing research project in collaboration with the instructor and graduate students. Students participate in designing and conducting studies in schools and day-care centers analyzing data and presenting findings. Recent topics include symbol-

ism in young children, children's ideas about the physical world, and children's understanding of diseases. Instructor's permission.

Ms. Wiser/Offered periodically

223 RESEARCH IN MOTIVATIONAL AND EMOTIONAL DEVELOPMENT IN INFANTS, CHILDREN, AND ADOLESCENTS/LABORATORY, DISCUSSION

Ongoing research on the effects of contexts (home, school, etc) on the emotional and motivational development of children.

Instructor's permission. Ms. Grolnick/Offered every semester.

224 RESEARCH ON IDENTITY DEVELOPMENT/LABORATORY, DISCUSSION

Designed to train students in an ongoing research project on the development of subjectivity and identity in and through discourse, particularly narrative discourse. Instructor's permission required. Mr. Bamberg/Offered periodically

225 RESEARCH IN FAMILY AND CHILD/LABORATORY, DISCUSSION

Students participate in ongoing research projects that examine causes of aggression, gender differences, or family issues either with children, adolescents, or parent-child dyads. The research takes place within a cognitive behavioral framework. Instructor's permission required. Staff/Offered every year

226 RESEARCH IN BIOACOUSTICS/LABORATORY, DISCUSSION

The research analyzes animal and human infant sounds to describe their form and discover their significance. Meets weekly to plan and carry out research projects. Limited enrollment. Instructor's permission and a period of volunteer apprenticeship normally required. Mr. Thompson/Offered every year

227 RESEARCH IN PSYCHOTHERAPY/LABORATORY, DISCUSSION

Studies the process of change in various forms of psychotherapy. Students can participate in the formulation of a question and systematic evaluation of hypotheses pertaining to specific client-therapist interactions. Instructor's permission required. Mr. Addis/Offered periodically

228 RESEARCH ON DEVELOPMENTAL ASPECTS OF TRANSACTIONS OF PERSONS-IN-ENVIRONMENTS/LABORATORY, DISCUSSION

Discusses theory, findings, and research problems deriving from an ongoing research program—a holistic-developmental, systems-oriented approach to the analysis of transactions of persons-in-environment. A research proposal and final report describing the research project are prepared. Ideally, the research is presented at undergraduate or professional meetings, and a manuscript is prepared for submission to a journal. Prerequisites: PSYC 105, 107, and instructor's permission. Mr. Wapner/Offered every semester

229 RESEARCH IN THE DEVELOPMENT OF LANGUAGE AND LANGUAGE SOCIALIZATION/LABORATORY, DISCUSSION

Students participate in an ongoing project concerning language development and language socialization research program. Students are responsible for various phases of research, including preparing literature surveys, analyzing data, and interpreting results. Towards the end of the semester, students prepare a written paper describing their work. Instructor's permission. Ms. Budwig/Offered every semester

230 RESEARCH IN CULTURAL PSYCHOLOGY/LABORATORY, DISCUSSION

Provides students with an overview of the empirical research practices in different branches of cultural psychology, and with practical skills in designing and carrying out one's own (or group) project. The projects are expected to continue over the following semesters. Instructor's permission required (and granted for continuing projects). Mr. Valsiner/Offered every semester

231 COUPLES RESEARCH/LABORATORY, DISCUSSION

This course involves undergraduate majors in all phases of ongoing research being conducted in the Couples Research Laboratory of Professor James Cordova. Students will participate in weekly lab meetings. Depending on the phase that studies being conducted in the lab,

students can be involved in project design, recruiting participants, interviewing participants, observing couples' interactions and coding their behavior, gathering data, managing data, and library research. Mr. Cordova/Offered periodically

232 RESEARCH IN COMMUNITY/LABORATORY, DISCUSSION

This course provided a hands-on experience with conducting community/clinical psychology research in the area of childhood depression. Students will be actively involved in a grant-funded research project in which we will examine the relationships among race, ethnicity, and depression in 5th- and 6th-grade children in the Worcester school district. In order to maximize the experience on this project, students will participate in a weekly class in which the theoretical underpinnings of the project are discussed. Students will also be required to write a final paper and present a poster at Academic Spree Day. Mr. Cardemil/Offered periodically.

233 RESEARCH ON THINKING IN SOCIETAL CONTEXT

Ongoing interview research on how social context shapes people's subjectivity and modes of thinking. The course trains students in interview practices, data analysis, and societal perspectives on human functioning. Instructor's permission. Ms. Falmagne/Offered periodically

240 MEMORY DEVELOPMENT/FIRST SEMINAR

Exposes students to research and theory in the area of memory development. Topics include infant memory and imitation, autobiographical memory, and the effects of stress on memory. Special emphasis is placed on critical analysis of research studies. Prerequisites: PSYC 150 and instructor's permission. Ms. Reese/Offered periodically

241 PHILOSOPHY OF PSYCHOLOGY/FIRST SEMINAR

A philosophical consideration of central concepts and major theories in psychology. Mr. Hendricks/Offered every year

242 EVOLUTIONARY PSYCHOLOGY I/FIRST SEMINAR

An introduction to intellectual history and contemporary data concerning the idea that human behavior is determined by its evolutionary history. Instructor's permission. Mr. Thompson/Offered every year

243 SEMINAR IN PHENOMENOLOGICAL PSYCHOLOGY/FIRST SEMINAR

Describes and analyzes personal experience. Each of the readings describes a different aspect of experience. These are then compared with our own experience of our body, our environment, ourselves, others, our emotions, actions, and thoughts, and with our imagination and our relationship to reality. Mr. deRivera/Offered periodically

244 COGNITIVE DEVELOPMENT/FIRST SEMINAR

This seminar explores the perceptual and cognitive abilities of babies and young children. How does their knowledge of physical objects, space, the biological world, number, and people's minds and behaviors evolve? How does their ability to imitate and communicate develop? How do they learn to categorize and label objects? How does reasoning and problem solving change with age? Different theoretical approaches will be considered, especially with respect to the role of experience and innate factors in development (the nature/nurture issues). PSYC 120 or 150 and instructor's permission. Ms. Wiser/Offered periodically

245 CULTURAL COMPARISONS IN PSYCHOLOGY AND ANTHROPOLOGY/FIRST SEMINAR

Examines the logic of making comparisons between societies and persons. Brings together empirical evidence from psychology, history of culture, and cultural anthropology, and provides an interpretive framework for making sense of such evidence. Different uses of knowledge about comparisons of societies within a society (in the United States or other countries) in the hands of peace (or war)makers, social policy planners, etc. will be discussed. Prerequisites: some introductory Geography course, PSYC 101 and 156 or instructor's permission. Mr. Valsiner/Offered periodically.

246 PSYCHOLOGY OF PEACEMAKING/FIRST SEMINAR

Examines the psychological dimension that is always present in trying to achieve peace and justice within ourselves, in our interpersonal relationships, and in intergroup relations.

Topics include political sociology, the management of aggression, negotiation, mediation, forgiveness, and training for the nonviolent action necessary to achieve justice.

Mr. de Rivera/Offered every other year

247 THEORETICAL MODELS OF COMMUNICATION IN PSYCHOLOGY/FIRST SEMINAR

Provides students with systematic knowledge about the ideas of communication as these have moved between psychology, anthropology, language philosophy, sociology, and cultural studies. Mr. Valsiner/Offered periodically

248 CHILDREN'S UNDERSTANDING OF MIND/FIRST SEMINAR

Explores the development of children's understanding of mind. Topics include precursors to a "theory of mind," primates' understanding of mind, theories of "theory of mind," and social and cultural influences on its development.

Ms. Vinden/Offered every year

249 WOMEN IN SOCIETY/FIRST SEMINAR

Examines how women's psychological functioning and development can be understood in societal context, with attention to differences as well as commonalities among women. The seminar first discusses anthropological and sociological examinations of women's cultural status in various societies, and of different women's status within a given society. Economic, historical, institutional, and symbolic processes impinging on the individual (such as societal discourses, language, media, social institutions) are considered, as well as their interconnections. The seminar then discusses individual functioning within that context, covering such topics as women's personal development, life issues of women, intellectual functioning, and power, and women's roles and functions in society, including issues relating to role choices and adult development. Ms. Joffe Falmagne/Offered every year

250 THEORIES OF FAMILY PROCESSES/FIRST SEMINAR

Exposes students to the major theories of family processes (eg, biological, psychodynamic, structural, and behavioral views). Focuses on how the family as a system responds to stress, such as developmental shifts, illness, and psychological disorder. Film and literature portrayals of families are utilized. Instructor's permission. Staff/Offered periodically

251 LANGUAGE DEVELOPMENT/FIRST SEMINAR

A comprehensive survey of the basic issues and topics involved in the study of language development. The course begins with an examination of the structure of language and the varied uses of language in human activity. Against this background the course turns to the question of how children acquire language, with special emphasis on the contributions of cognitive, social, and language-specific factors in this process. Prerequisite: PSYC 150. Ms. Budwig/Offered every year

252 SEMINAR IN AGGRESSION/FIRST SEMINAR

The various forms of aggressive behavior are considered from both a theoretical and practical perspective, with strong emphasis on psychological aspects of aggressive behavior. In addition to obvious forms of aggression, including domestic aggression, homicide, war, and gang violence, aggressive aspects in art, music, sports and the corporate world are considered. Prerequisites: PSYC 173 helpful but not required; instructor's permission. Staff/Offered periodically

253 NARRATIVE DISCOURSE/FIRST SEMINAR

Relates social, cultural, and historical frames to how people talk, particularly to talk in narrative form. Special emphasis is given to the analysis of discourse and narratives for the way people use talk in order to construe a sense of self and a sense of the other. Prerequisite: instructor's permission. Mr. Bamberg/Offered periodically

255 EXPERIMENTAL SOCIAL PSYCHOLOGY/FIRST SEMINAR

The course will explore in some depth the contributions of experimental research to understanding various social psychological phenomena, including conformity and obedience; cognitive dissonance; self-concepts; impression formation and attribution; liking and interpersonal attraction; prejudice and stereotyping; social dilemmas; aggression; helping and altruism; and others. Each student will write a paper and lead a discussion on one such topic, which s/he will select. All students will read these papers and selected works in these topic areas. Mr. Laird/Offered periodically

256 THE PSYCHOLOGY OF COUPLES AND INTIMACY/FIRST SEMINAR

This course presents the scientific study of couples' intimate relationships. The course provides a broad overview of what is currently known about adult romantic relationships, mate selection, intimacy development, marriage, relationship distress, and divorce. Mr. Cordova/Offered periodically.

257 PHILOSOPHY OF COGNITIVE SCIENCE/FIRST SEMINAR

Investigation of the idea that the mind is a machine that can be studied scientifically. We focus on two proposals for how the mind is structured: the "digital computational" model and connectionist (PDP) architectures. Our examination draws from research in artificial intelligence, cognitive psychology, neuroscience, and philosophy. Mr. Hendricks/Offered periodically

258 DEVELOPMENT OF SENSE OF SELF/FIRST SEMINAR

Examines stages in the development of an adult sense of self from a variety of theoretical perspectives (cognitive, psychoanalytic, sociocultural, dynamic systems). Explores emotion possibilities and vulnerabilities inherent in each successive sense of self, the effects of early socialization experience, multiple pathways, and multiple endpoints (gender and cultural identities). Prerequisites: PSYC 150, 120, and instructor's permission. Ms. Griffin/Offered periodically

259 PSYCHOTHERAPIES/FIRST SEMINAR

A variety of methods of reducing symptoms, solving problems in living, and promoting personal development are considered through class discussion and illustration and through intensive reading of primary sources. Prerequisites: PSYC 172 and instructor's permission. Staff/Offered every year

261 HUMAN NEUROPSYCHOLOGY/LECTURE, DISCUSSION

Prominent lecturers review and discuss current research. Potential topics include overview of brain organization, brain electrical potentials, cerebral dominance, neuroanatomy and pathology of language, bilingualism, emotion, and principals of neuropsychological assessment. Yearlong course; divisible. Open to advanced undergraduates and graduate students. Staff/Offered periodically

263 CONTEMPORARY FAMILY RESEARCH/CAPSTONE SEMINAR

Bridges the fields of family theory and therapy with contemporary family research. Examines major schools of family therapy (psychoanalytic, structural, strategic and family of origin), and considers themes and trends in current family research. Special attention is given to gender and coparenting issues in the family. Students take an active role in researching and presenting topics of interest. Instructor permission required. Mr. McHale/Offered periodically

264 THEORY AND RESEARCH IN SOCIAL AND PERSONALITY DEVELOPMENT/CAPSTONE SEMINAR

Explore theories and research on the socialization and individuation (and their interaction) of the developing infant, child, and adolescent. Highlights contributions of the child, the family, the larger sociocultural context, and their interplay. Topics covered include parent-child attachment, temperament, peer relations, development of self. Research methods and analysis in developmental research (e.g., modeling growth and change) will be addressed. Ms. Grolnick/Offered periodically

265 PSYCHOLOGY OF MEN/CAPSTONE SEMINAR

Explores topics related to the construction and experience of masculinity and the male gender role in different social contexts. Applies current theories of gender role socialization to families, seeking help, men's health, friendships, sports and diversity. Instructor's permission required. Ms. Addis/Offered periodically

267 ADVANCED TOPICS IN EVOLUTIONARY PSYCHOLOGY/CAPSTONE SEMINAR

Each year, the participants focus on a different literature that brings Darwinian concepts to bear on problems in the field of psychology. In recent years, the seminar has focused on the problem of altruism, Darwinian medicine, and evolutionary psychiatry. Mr. Thompson/Offered periodically

268 COMMUNICATIVE DEVELOPMENT/CAPSTONE SEMINAR

Focuses on various approaches to an understanding of human communication from an interdisciplinary perspective. Explores the relationship between social, cognitive, and linguistic factors in children's communicative development. Prerequisite: PSYC 150 and a First Seminar. Ms. Budwig/Offered periodically

270 ADVANCED TOPICS IN SOCIAL PSYCHOLOGY/CAPSTONE SEMINAR

An intensive treatment of selected areas in social psychological research and theory, including consistency theories in attitude formation and in interpersonal perception; attribution theory in self-perception; and social/situational determinants of normal, everyday behavior and of antisocial behaviors such as violence, criminality, and riots. Ordinarily limited to senior majors in psychology or sociology. Instructor's permission. Mr. Laird/Offered periodically

271 SOCIAL, CULTURAL, AND EVOLUTIONARY PERSPECTIVES ON TERRORISM/CAPSTONE SEMINAR

The psychological and social roots of terrorist activities and mindset will be examined through investigation of the classic knowledge

in social, cultural, and evolutionary psychology. Mr. Laird, Mr. Valsiner, Mr. Thompson/Offered periodically

272 IDENTITY FORMATION/CAPSTONE SEMINAR

Explores the construction of adolescent and male identities in sociohistorical contexts. Particular emphasis is placed on the sociohistorical concepts of adolescence and masculinity as discourses, and how young males between 10- and 15-years of age position themselves vis-à-vis these discourses in their own talk. Prerequisite: PSYC 214 or 253. Mr Bamberg/Offered periodically

273 INTEGRATIVE SEMINAR IN PSYCHOLOGY/CAPSTONE SEMINAR

This course provides an opportunity for undergraduates to participate in the department's Integrative Faculty Forum. The instructor will assign readings to prepare the students for each week's forum and assist each participant to prepare a paper that deepens his or her understanding of one of the central themes of the forum's discussions. Staff/Offered every semester

275 SOCIETAL APPROACHES TO THINKING/CAPSTONE SEMINAR

This capstone seminar provides a theoretical and methodological frame for studying how thinking is shaped by the societal context in which the person is situated, by the social location the person occupies in that context, by the cultural discourses in which he/she participates, and by the nature of what is being thought about. The seminar draws from readings from interdisciplinary sources, including psychology. The emphasis of the first part of the course is theoretical and methodological. Students then apply these notions to an independent, mini research project, with ongoing class discussion of the formulation, conduct and data analysis of this project. Instructor's permission. Ms. Joffe Falmagne/Offered periodically

276 ADVANCED TOPICS IN CULTURAL PSYCHOLOGY/CAPSTONE SEMINAR

Devoted to a specific subtopic unique for each semester. Designed for seniors and graduate students. Official permission not needed, but contact the instructor for specific topic. Mr. Valsiner/Offered every fall semester

278 ETHNOPSYCHOLOGY/CAPSTONE SEMINAR

Explores how fold psychologies (i.e., what it means to be a person) vary from culture to culture, whether there are certain universal characteristics of all folk psychologies, and how to understand the similarities and differences across cultures. Ms. Vinden/Offered periodically

279 BASIC DEVELOPMENTAL THEORIES/CAPSTONE SEMINAR

Provides a systematic overview of core ideas in the selected theories, and guides students to analyze these from the viewpoint of how theories relate with phenomena of development as well as empirical research practices. Instructor's permission. Mr. Valsiner/Offered periodically

282 SELF AND EMOTION/CAPSTONE SEMINAR

Focuses on the processes by which self-knowledge and self-awareness are developed and maintained. Other topics include the development of self-conceptions, self-consciousness, the understanding and control of one's own actions, self-blame, and the effects of actions on attitudes and feelings. Instructor's permission required. Mr. Laird/Offered periodically

283 HISTORICAL BACKGROUND OF CONTEMPORARY PSYCHOLOGY/CAPSTONE SEMINAR

Includes an appreciation of the generative ideas and world hypotheses underlying contemporary psychological approaches and traces the earlier manifestations of these ideas and world hypotheses in intellectual history or history of ideas. Instructor's permission. Mr. Kaplan, Mr. Valsiner/Offered periodically

284 RESEARCH INTERVIEWING/CAPSTONE SEMINAR

Interviewing is frequently relied upon as method for obtaining data in studies. Interviews are also an intrinsic aspect of many disciplines

in the faculty of arts and sciences as well as medicine. The course will review traditions utilized by various disciplines (ethnographic; medical interviewing including the history of history taking in medicine; focus groups in political science and so on) and diverse specialties in psychology including clinical, developmental, and industrial psychology. This course will be open to advanced undergrads and doctoral students in psychology. Instructor's permission. Mr. Bibace/Offered periodically

285 EMOTION AND INTERPERSONAL RELATIONSHIPS/CAPSTONE SEMINAR

What are emotions and how do they affect our behavior and our relationships? The course examines a number of theories. Prerequisite: First Seminar and instructor's permission. Mr. deRivera/Offered every other year

290 MOTIVATION AND SELF-REGULATION/CAPSTONE SEMINAR

Explores the motivation of human behavior, i.e., what energizes and directs our actions. Examines theoretical and empirical works relevant to motivation, particularly those emphasizing an active organism. Also applies motivational theories to various areas, including education, work, sports, psychopathology, and psychotherapy. Prerequisite: First Seminar. Ms. Grolnick/Offered periodically

292 CAPSTONE RESEARCH IN PSYCHOLOGY/TUTORIAL

Independent study at an advanced level for qualified students. Staff/Offered every semester

293 HONORS IN PSYCHOLOGY: SENIOR YEAR/TUTORIAL

Students carry out a research project under the direction of a faculty member. Department permission required. Staff/Offered every semester

295 ADVANCED TOPICS ON GENDER AND SOCIETY/SEMINAR

This capstone seminar examines selected issues in the study of gender in its societal matrix, where gender is understood in its intersection with race, class and ethnicity. The seminar draws from interdisciplinary resources and systematically guides students into scholarly

research on specific topics in these areas. Along with class readings and discussions on issues of theory and methodology, students will select a topic of their choice to research in depth and discuss their findings with the class weekly. The course is suitable for psychology seniors and students from other disciplines or programs who wish to pursue psychological questions in this area. Prerequisites: Instructor's permission. Ms. Falmagne/Offered periodically

296 DEVELOPMENT OF KNOWLEDGE/CAPSTONE SEMINAR

The issue of knowledge acquisition is approached from a neonativist perspective, i.e., on the assumption that humans have innate cognitive abilities to make sense of the world. Topics include: the nature of those abilities and how they shape learning in early childhood; the development of everyday knowledge about the physical world, the biological world, and the understanding of people's minds; the development of symbolism; parallel between individual development and history of science; cognitive abilities in animals; the evolution of language, writing and number in the history of our species. PSYC 120, 150, 244 or a First Seminar. Ms. Wiser/Offered periodically

297 SEMINAR IN HEALTH PSYCHOLOGY/CAPSTONE SEMINAR

Introduces the field of health psychology, covering such topics as stress and the psychosocial causes of illness, modification of problem health behaviors, issues in doctor-patient interaction, psychological effects of chronic illnesses, and the role of the psychologist as a consultant in health-care settings. Instructor's permission. Mr. Bibace/Offered periodically

299 DIRECTED STUDY IN PSYCHOLOGY

Independent study for qualified students. Instructor's permission. Staff/Offered every semester

300 DEVELOPMENTAL PSYCHOLOGY FORUM/GRADUATE SEMINAR

Devoted to the presentation and critique of different approaches to the individual and his/her ways of functioning in the world. The

approaches considered may include: Piagetian, nativist, organismic-developmental, cultural/historical or may stem from interdisciplinary perspectives on a selected theme. The aim is to acquaint the participants with sympathetic expositions of several points of view and the application of these viewpoints to some selected topic of inquiry. Different topics are discussed in different years. Mr. Bamberg, Ms. Budwig, Ms. Falmagne, Ms. Reese, Mr. Valsiner, Ms. Vinden, Ms. Wiser, and others/Offered every year

301 PROBLEM, THEORY, AND METHOD/GRADUATE SEMINAR

During the first semester, each faculty member meets once with the class to discuss his/her perspectives and research. Students prepare brief reports characterizing the links among each faculty member's perspective, research, problems, and methods. During semester two, students formulate proposals, and the methods and ethics of research are discussed. Staff/Offered every semester

302 STATISTICAL METHODS/SEMINAR

The first semester is devoted to a review of the basic concepts of statistics, such as probability, statistical inference, sampling distribution, t-test, and regression, and to nonparametric statistics. The second semester introduces analysis of variance and experimental design. Ms. Wiser, Mr. Stevens/Offered every year

303 ADULT ASSESSMENT/GRADUATE CLINICAL SEMINAR

Introduces measurement in clinical psychology (first semester) and intellectual and projective testing with adults (second semester). Staff/Offered every year

304 CHILD ASSESSMENT/GRADUATE CLINICAL SEMINAR

Focuses on the administration and interpretation of various assessment instruments for children. Includes intelligence and personality testing and diagnostic interviewing. Mr. Ciottone, Ms. Grolnick/Offered every year

306 QUALITATIVE/INTERPRETIVE METHODS/ GRADUATE SEMINAR

Introductory seminar at the graduate level into qualitative research, its conceptual roots, covering the ontological and epistemological concerns, but centering on the methodological issues surrounding contemporary psychological research. Textbook readings will be supplemented with contemporary articles on ethnography, ethnomethodology, discourse and narrative analysis. Mr. Bamberg/Offered periodically

310 THEORIES OF PSYCHOTHERAPY/GRADUATE SEMINAR

Considers the concepts guiding various methods of psychotherapy. Mr. Addis/Offered every other year

311 PSYCHOPATHOLOGY/GRADUATE SEMINAR

Examines the difficulties of defining psychopathology and reviews the major diagnostic categories currently in use from a phenomenological, theoretical, and research perspective. Special attention is given to gender, class, and diversity issues. Staff/Offered every other year

312 THEORIES OF PERSONALITY/GRADUATE SEMINAR

Examines various theoretical approaches to personal consistency and individual differences. Staff/Offered periodically

316 SENSORY PROCESSES AND PSYCHOPHYSICS/ GRADUATE SEMINAR

Discusses psychophysical concepts and methods, including magnitude estimation and multidimensional scaling. Focuses on concepts and methods relevant to studies of taste, smell, and flavor. Mr. Stevens/Offered periodically

317 MORAL DEVELOPMENT/GRADUATE SEMINAR

Attempts to integrate the literatures on moral development and prosocial behavior. Four problems are considered: (1) the relationship between justice and caring; (2) the social development of empathy and responsibility and the personal development of a moral identity; (3) the tension between the search for moral universality and the fact of cultural differences; (4) and the relationship between abstract moral reasoning and concrete moral action. Mr. de Rivera/Offered periodically

318 SYMBOLISM/GRADUATE SEMINAR

This course will be of interest to students interested in child development, cognition, and the history of human knowledge. The topic, early symbolism (in the historical as well as ontogenetic sense), has a rich history at Clark University as well as contemporary relevance in cognitive psychology. We will study some of the following areas: the developments of writing, of symbolic verbal communication, and of number in children and in history; magic and myths; symbolization in alchemy and in modern science; children's understanding of models, graphs and maps; and various aspects of mental representation in cognitive psychology. Ms. Wiser/Offered periodically

319 ADVANCED TOPICS IN SOCIAL PSYCHOLOGY/GRADUATE SEMINAR

See Psychology 270. Mr. Laird/Offered periodically

320 ADVANCED TOPICS IN COMMUNICATION/ GRADUATE SEMINAR

Provides an overview of theory and research in the area of language development with special focus on functional approaches. Topics vary from year to year. Ms. Budwig/Offered periodically

321 TOPICS IN DISCOURSE ANALYSIS/GRADUATE SEMINAR

Advanced graduate seminar in qualitative methods: explores the basic question of how meaning is situated in discourse, especially narrative discourse, and how we can get hold of it by methods of analysis. The course then applies some of these issues to ongoing research projects. Mr. Bamberg/Offered periodically

322 LITERACY DEVELOPMENT/GRADUATE SEMINAR

Critically evaluates current theories and research on the course of early literacy development. Topics include the role of social factors, oral language skills, and phonological awareness in the transition to literacy. Ms. Reese/Offered periodically.

323 THEORY AND RESEARCH IN SOCIAL AND EMOTIONAL DEVELOPMENT/GRADUATE SEMINAR

Explores theories and research on the socialization and individuation (and their interaction) of the developing infant, child, and adolescent. Highlights contributions of the child, the family, the larger sociocultural context and their interplay. Topics covered include parent-child attachment, temperament, peer relations, self-development, and sex-role socialization. Emphasizes research methods and analysis in developmental research (e.g., modeling growth and change). Ms. Grolnick/Offered periodically

325 CONCEPTS AND THEORIES IN CONCEPTUAL DEVELOPMENT/GRADUATE SEMINAR

Examines the development of children's knowledge about the physical, biological, and social worlds from a neonativist perspective (innate constraints and domain-specificity). Topics include the structure and content of infants' knowledge, processes of knowledge acquisition, relations between individual and cultural knowledge. Related topics include: evolutionary perspectives on knowledge development, concept theory change in history of science, conceptual change in the science classroom, mental models. Prerequisite: permission of instructor. Ms. Wiser/Offered periodically

326 FEMINIST PERSPECTIVES ON SELF, MIND, IDENTITY, AND DEVELOPMENT/GRADUATE SEMINAR

Surveys several approaches that examine how self, mind, and identity are constituted and develop in societal context, with particular focus on gender as one category of analysis, both discursive and material. Selected works illustrating these different perspectives as well as some of their current debates will be studied. Prerequisite: permission. Ms. Falmagne/Offered periodically

327 BASIC DEVELOPMENTAL THEORIES/GRADUATE SEMINAR

Provides a systematic overview of core ideas in the selected theories of development. Covered will be theories of Lamarck, Preyer, J.M. Baldwin, Piaget, Vygotsky, Werner, Kaplan,

Gottlieb, Fischer, van Geert. Analyzes theoretical systems from the viewpoint of how these theories relate to the phenomena of development as well as with empirical research practices. Mr. Valsiner/Offered periodically

328 TOPICS IN CONCEPTUAL DEVELOPMENT/GRADUATE SEMINAR

Reviews recent advances in cognitive science related to conceptual development. Topics include various aspects of the neonativist approach to knowledge development (e.g., nature of innate abilities, modularity, children's theories in different domains), the development of mental models and analogical reasoning, some neo-Piagetian theories, connectionist models, Dynamic System Theory, evolutionary epistemology, cognitive approaches to history of science, and to science and mathematics education. Ms. Wiser/Offered periodically

330 EVOLUTIONARY PSYCHOLOGY/GRADUATE SEMINAR

An introduction, designed explicitly for clinical, developmental and social graduate students, to the explanation of human behavior by reference to Darwinian Evolution. Mr. Thompson/Offered periodically

331 MULTIVARIATE ANALYSIS/GRADUATE SEMINAR

Introduces students to multivariate statistics. The models, assumptions, data screening and interpretation of results for factor analysis, multiple regression and multidimensional scaling, for example, are discussed. Mr. Stevens/Offered periodically

332 SYMBOLISM IN COGNITIVE DEVELOPMENT/GRADUATE SEMINAR

An hour-long discussion of papers on various cognitive science approaches to cognitive development (e.g., pretend play, nature and phylogenetic development of symbolic thinking, situated cognition approaches to literacy). Topics are selected to be relevant to students' research. An additional hour-long discussion with individual faculty and a presentation to the group are also required. Ms. Reese, Ms. Vinden, Ms. Wiser/Offered periodically

333 PRETENSE, IMAGINATION, AND CREATIVITY/GRADUATE SEMINAR

Pretense, imagination and creativity are different but overlapping activities. An examination of theories and experiments, both old and current, will enable us to discuss questions regarding what these activities are, how they develop, and how they function in relation to other areas of the child's development, and in relation to the cultural context in and through which the child is developing. Students will be expected to contribute readings to the course that are related to the core topics and reflect their own interests. Ms. Vinden/Offered periodically

334 CRITICAL PSYCHOLOGY FORUM/GRADUATE SEMINAR

This is an interdisciplinary forum for bringing issues of contemporary social, personality, evolutionary and cultural psychology to be actively discussed by all graduate students. The aim is to acquaint the participants with several opposing views, and to demonstrate how such views can lead to new knowledge. Different topics are discussed in different years. Staff/Offered periodically

340 EMOTION AND INTERPERSONAL RELATIONS/GRADUATE SEMINAR

Uses our knowledge of various emotional transformations (e.g., changes in self-boundary) to develop a precise language for the description of interpersonal phenomena such as merger-separation, dynamics, identification, and the dynamics of family constellations. Mr. deRivera/Offered periodically

347 LANGUAGE AND HUMAN DEVELOPMENT/GRADUATE SEMINAR

Introduces students to central debates concerning the relationship between language, thought, and culture. Drawing upon readings from a variety of disciplines including psychology, anthropology, and linguistics, we consider language and context, communicative practices, and how developmental psychologists have thought about the interface between language, thought, and culture. Students have the opportunity to relate ongoing interests to

themes from the seminar. Ms. Budwig/Offered periodically

350 MOTIVATION AND SELF-REGULATION/GRADUATE SEMINAR

See Psychology 290.

351 METHODOLOGIES OF SYSTEMIC ANALYSES OF SINGLE CASES/GRADUATE SEMINAR

The goal is to provide graduate students with knowledge and practical experience of analysis of individual cases (both for research and practice). The seminar covers both qualitative and quantitative approaches to single-case analysis. Mr. Valsiner, Mr. Laird, Mr. Bibace/Offered periodically

354 THEORY AND RESEARCH IN SOCIAL AND PERSONALITY DEVELOPMENT/GRADUATE SEMINAR

See Psychology 264.

355 EMOTIONS AND INTERPERSONAL RELATIONSHIPS/GRADUATE SEMINAR

See Psychology 285.

356 INFANT DEVELOPMENT AND MENTAL HEALTH/GRADUATE SEMINAR

Overview of infant development 0-3. First part of course emphasizes normal development, including cognitive, perceptual, motor, and representational development. Second part of course emphasizes normal and problematic regulations (sleep, feeding, self-soothing) and relationship development, and methods of intervention for ongoing problems. Mr. McHale, Ms. Wiser/Offered periodically

361 HUMAN NEUROPSYCHOLOGY/GRADUATE SEMINAR

See Psychology 261.

362 CURRENT PERSPECTIVES IN EVOLUTIONARY AND SOCIAL PSYCHOLOGY/GRADUATE SEMINAR

Evolutionary theory is both challenged by and contributes to the understanding of social phenomena. The course explores classic topics in social interaction, such as group process, conformity and obedience, interpersonal attraction, emotion, self and identity and altruism, bringing to bear simultaneously the perspectives of evolutionary psychology and standard social psychology. Mr. Laird/Offered periodically

**363 CONTEMPORARY FAMILY
RESEARCH/GRADUATE SEMINAR**

See Psychology 263.

**364 SEMINAR: DIVERSITY ISSUES/GRADUATE
SEMINAR**

This course was developed to fulfill the Massachusetts State Licensing Board requirement for training in issues of cultural diversity. It examines the sociocultural context of human behavior with a particular focus on issues of diversity in the clinical situation. The first part looks at the effects of prejudice and discrimination on individual and group mental health, with a special emphasis on U.S. ethnic minority, immigrant and gender groups. The second part deals with the influence of culture on psychopathology and psychiatric diagnosis. Finally, the third part of the course focuses on topics of diversity in the therapeutic relationship. Staff/Offered every other year

**365 MEN AND MASCULINITY/GRADUATE
SEMINAR**

See Psychology 265.

**367 ADVANCED TOPICS IN EVOLUTIONARY
PSYCHOLOGY**

See Psychology 267.

**368 COMMUNICATIVE DEVELOPMENT/GRADUATE
SEMINAR**

See Psychology 268.

**371 SOCIAL, CULTURAL, AND EVOLUTIONARY
PERSPECTIVES ON TERRORISM/GRADUATE
SEMINAR**

See Psychology 271.

372 IDENTITY FORMATION/GRADUATE SEMINAR

See Psychology 272.

**374 COUPLES THERAPY PRACTICUM/GRADUATE
SEMINAR**

Students in this practicum will learn how to assess and treat the full spectrum of mildly to severely distressed couples. The treatment approach emphasizes fostering intimacy, close-

ness and mutual acceptance while at the same time teaching useful communication and problem-solving skills. We will be treating both married and unmarried couples as long as they are currently living together and are not violent. Depending on the number of students in the practicum, students will either treat couples as a part of a two-person team or as the sole therapist. Class time will be devoted to group supervision, discussions of the broader issues of couple therapy and a weekly journal club. Students should expect to see between two and three couples over the course of the one-year practicum, with each course of therapy being approximately 20 to 25 sessions. Students in the practicum will learn about the correlates and predictors of marital distress, how to assess a couple's level of distress and commitment, how to formulate and test therapeutic hypotheses over the course of treatment, and how to conduct a very powerful and effective approach to couple therapy. Students should expect to be proficient and capable of proceeding quite independently by the end of this one year practicum. Mr. Cordova/Offered periodically.

**375 SOCIETAL APPROACHES TO
THINKING/GRADUATE SEMINAR**

See Psychology 275.

**376 ADVANCED TOPICS IN CULTURAL
PSYCHOLOGY/GRADUATE SEMINAR**

See Psychology 276.

**377 SEMINAR IN HEALTH
PSYCHOLOGY/GRADUATE SEMINAR**

See Psychology 297.

378 ETHNOPSYCHOLOGY/GRADUATE SEMINAR

See Psychology 278.

**379 BASIC DEVELOPMENTAL THEORIES/GRADUATE
SEMINAR**

See Psychology 279.

380 PSYCHOTHERAPY PRACTICUM/GRADUATE CLINICAL PRACTICUM

Supervised experiences in psychotherapy.
Staff/Offered every year

381 FAMILY THERAPY PRACTICUM/GRADUATE CLINICAL PRACTICUM

Family and couple therapy and group parent training. For third-year clinical students.
Mr. McHale/Offered every semester

382 ADVANCED THERAPY PRACTICUM/GRADUATE CLINICAL PRACTICUM

Mr. Bibace/Offered periodically

383 COGNITIVE AND BEHAVIORAL ASSESSMENT/GRADUATE CLINICAL PRACTICUM

Staff/Offered periodically

384 CONSULTING PRACTICUM/GRADUATE CLINICAL PRACTICUM

Mr. Bibace/Offered periodically

385 CHILD THERAPY PRACTICUM/GRADUATE CLINICAL PRACTICUM

Ms. Grolnick, Mr. Ciottone/Offered every other year

386 NEUROPSYCHOLOGY ASSESSMENT/GRADUATE CLINICAL PRACTICUM

Staff/Offered periodically

387 ETHICS IN CLINICAL PSYCHOLOGY/GRADUATE CLINICAL PRACTICUM

For first-year clinical students. Staff/Offered every year

388 INTERVIEWING PRACTICUM/GRADUATE CLINICAL PRACTICUM

For first-year clinical students. Staff/Offered every year

389 CLINICAL WORKSHOP/GRADUATE CLINICAL SEMINAR

For all clinical students in residence. Clinical Staff/Offered every semester

390 PROGRESS IN PSYCHOLOGY/GRADUATE SEMINAR

This seminar will acquaint advanced graduate students with the most recent theoretical, empirical, and methodological thought in the discipline. Staff/Offered every semester

391 MASTERS SEMINAR/GRADUATE SEMINAR

Provides advanced graduate students with a systematic framework for knowledge about professionally relevant accomplishments in their professions: second-year project, M.A. thesis, preparation of manuscripts for publication, build-up of curriculae vitae. Staff/offered every semester

392 SELF & EMOTION/GRADUATE SEMINAR

See Psychology 282.

393 HISTORICAL BACKGROUND OF CONTEMPORARY PSYCHOLOGY/GRADUATE SEMINAR

See Psychology 283.

394 RESEARCH INTERVIEWING/GRADUATE SEMINAR

See Psychology 284.

395 ADVANCED TOPICS ON GENDER AND SOCIETY/GRADUATE SEMINAR

See Psychology 295.

396 DEVELOPMENT OF KNOWLEDGE/GRADUATE SEMINAR

See Psychology 296.

397 MASTER'S THESIS

Prerequisite: permission of thesis adviser.
Variable credit. Staff/Offered every semester

398 INTERNSHIP

399 DIRECTED STUDY

Prerequisite: permission of instructor. Variable credit. Staff/Offered every semester

SCREEN STUDIES

(See Visual and Performing Arts)

SOCIOLOGY

Program Faculty

Patricia M. Ewick, Ph.D., *chair: law research methods, gender, deviance*

Parminder Bhachu, Ph.D.: *urban anthropology, immigration, diaspora cultures, nationalism, cultural identities and global processes, new capitalism and markets*

Eric D. Gordy, Ph.D.: *sociological theory, culture, media and communication, political and historical sociology, Balkan societies*

Bruce London, Ph.D.: *environment and society, community, sociology of the Third World, social demography*

Deborah M. Merrill, Ph.D.: *research methods, family, aging, medical sociology, social demography*

Robert J.S. Ross, Ph.D.: *urban studies, political sociology, political economy, social policy*
Shelly Tenenbaum, Ph.D.: *Jewish studies, race and ethnicity, social stratification, gender*

Undergraduate Program

The American sociologist C. Wright Mills described the perspective of sociology as the "sociological imagination." This point of view enables us to see how individual lives are shaped by larger social forces. Mills argued that we cannot fully understand ourselves without understanding the society in which we live. At Clark, the sociology faculty is committed to developing such an analytic capacity in students.

Through the examination of social processes, such as social stratification, social movements and social change, and through an investigation of diverse social institutions, such as the law, the family, medicine, and religion, students acquire the conceptual and analytical tools to enhance both their understanding of their own lives and the world in which they live.

One of the questions most frequently asked by students is, "What can I do with a degree in sociology?" Because of the emphasis placed on

critical thinking, analytical and communicative skills, and methodological training, students majoring in sociology are well equipped to enter a variety of occupations, as well as professional careers and graduate schools. Sociology majors from Clark have gone to law school, medical school, social-work occupations, and business school, as well as public-policy and urban-planning training programs. Many find employment in human services, government and private businesses. Feel free to discuss your postgraduate plans with the faculty.

The sociology major consists of ten courses within the department and a minor, concentration, or a program in the social sciences or closely related field. A list is kept current in the department office. Currently, the 10 departmental courses are to be distributed as follows:

All majors must complete:

010 Introduction to Sociology

105 The Social Research Process

107 Sociological Theory: Classical

200 Class, Status, and Power

Majors must complete SOC 105 The Social Research Process and SOC 107 Classical Sociological Theory prior to the senior year. SOC 107 is a prerequisite for SOC 200 Class, Status, and Power.

All majors must also complete six additional sociology credits, one of which must be a capstone. At least three of these six courses must be at the 200 level. These credits may be fulfilled through the completion of six regular courses or through a combination of coursework, internships (maximum of two credits), or directed research. Of the four required courses for a major, three must be taken on campus. Of the ten total courses for the major, six must be taken on campus. To receive sociology major credit, students must earn a grade of C– or better credit.

The Capstone Requirement

Sociology majors must take a capstone seminar. To enroll in a capstone seminar, students must have already completed SOC 010 Introduction to Sociology, SOC 105 Social Research

Process, SOC 107 Classical Sociological Theory and all course prerequisites in the subject area of your capstone seminar. The capstone seminar will build upon knowledge gained in previous courses and will require a serious research component. All courses between 271 and 296 are capstone seminars. SOC 298 Senior Honors Thesis also fulfills the capstone requirement.

Senior Honors Thesis

Requires two to four courses in the senior year; designed for students wishing to devote approximately 50 percent of their senior year to a major research problem. Application to the sociology department by those with a 3.2 average in the major must be made by March 1 of the junior year. Complete guidelines are available in the department office.

Minor in Sociology

The Sociology minor consists of six courses with the following provisions: Three of our four courses: 1) SOC 010 Introduction to Sociology; 2) SOC 105 The Social Research Process; 3) SOC 107 Classical Sociological Theory; 4) SOC 200 Class, Status and Power. Please note that SOC 107 is a prerequisite for SOC 200. Students who have completed an equivalent methods course are encouraged to take the remaining three core courses. Three additional sociology courses, at least two of which must be at the 200 level. Four of the six courses must be taken on campus. Students must earn a grade of C- or better to receive sociology credit.

Courses

010 INTRODUCTION TO SOCIOLOGY/VARIABLE FORMAT

Overview of sociology, its areas of study, methods of inquiry, and concepts for the analysis of society. Seeks to understand social structure, social change, and individual relationship to them. Fulfills introductory course required for majors. Staff/Offered every semester

036 RACE AND ETHNICITY ACROSS BORDERS: COMPARING THE LOCAL AND GLOBAL/FIRST-YEAR SEMINAR

Using a comparative framework, this seminar will examine the concepts of race and ethnicity in local, national and global locations. Particular emphasis will be on race and ethnicity in changing cultural and political contexts in an ever-changing globally connected world. For example, how have the events of September 11 in New York determined and constructed racial and ethnic identities? What are social, cultural and political dynamics that shape racial identities and ethnic stereotypes? Why do derogatory racial labels get attached to people? How do ethnic groups get defined in volatile contexts? Students will read autobiographies and biographies to explore how formative racial and ethnic experiences have shaped their own lives and identities and those of others who have documented their lives in books and on film. What can we learn from these racial and ethnic imaginations that can help us theorize race and ethnicity across borders through sophisticated and sensitive theoretical frameworks. Fulfills the comparative perspective. First preference will be given to students in the International Studies Stream. Others will be admitted on a space available basis. Ms. Bhachu

105 SOCIAL RESEARCH PROCESS/LECTURE, DISCUSSION

General introduction to logic, techniques, and ethics of social-science inquiry. Reviews qualitative and quantitative methods, as well as sampling. Fulfills the methods requirement for majors. Not open to seniors. Ms. Ewick, Ms. Merrill, Staff/Offered every semester

107 CLASSICAL SOCIOLOGICAL THEORY/VARIABLE FORMAT

A critical and comparative survey of the major theorists of early sociology. The course is centered around the "canonical" core of sociological theory as represented by selected works of Marx, Durkheim, and Weber. In addition, some contemporary perspectives are explored.

These more contemporary perspectives may include critical theory, psychoanalytic theory, symbolic interactionism, and standpoint theories. Emphasis is placed on differing concepts of social structure, social and historical change, and the meaning of social action. Fulfills the social theory requirement for majors.

Mr. Gordy/Offered every semester

110 SOCIOLOGY OF GENDER/LECTURE, DISCUSSION

Focusing on sociological, historical, psychological, and economic dimensions of gender, this course examines the ways in which the social system and its institutions create, maintain, and reproduce gender. The course emphasizes the processes through which gender categories are constructed and represented, as well as the consequences of these categories for the lives of individuals. Ms. Ewick/Offered periodically

125 CITIES AND SUBURBS/VARIABLE FORMAT

Introduces urban sociology. Examines the structure and development of American metropolitan areas and community power, with special attention to changing functions of cities and suburbs. Examines different ways of life in cities and suburbs. Mr. Ross/Offered every year

130 GENOCIDE/LECTURE, DISCUSSION

This course will provide students with a comparative perspective that highlights both theory and concrete examples of genocide. The course will begin with an overview of sociological perspectives that explore structural, cultural, psychological, and political conditions that make the occurrence of and experience of genocidal behavior more probable. After surveying sociological theories of genocide, we will explore four cases of genocide that took place over the course of centuries and across several continents. The course will end with discussion of the prevention of genocide.

Mr. Gordy, Ms. Tenenbaum/Offered every year

135 MEDIA AND SOCIETY/LECTURE, DISCUSSION

Analyzes the development, history, and structure of media of mass communication. Examines research on a variety of contemporary issues in the sociology of media. A variety

of theoretical and methodological approaches is presented to questions of analysis and effects of communication media. Mr. Gordy/Offered every year

160 GLOBAL CULTURES AND IDENTITIES/LECTURE, DISCUSSION

Explores the impact of local, national, and international forces in the formation of cultural identities at a time of rapid social changes in the 1990s. Focuses on contemporary urban cultures to examine local and national identities as they are globally determined. Emphasizes the elastic and the plastic nature of cultures and the importance of time, place, and space to understand the emergence of new culturally diverse settings. Examines the nature of social and cultural change in local, national, and global economic and political spaces.

Ms. Bhachu/Offered every year

175 THE FAMILY/LECTURE, DISCUSSION

Examines the assumed collapse of the American family and the causes of this collapse. Also considers challenges to the new family, such as dual-career couples and the resulting division of labor in the home. Working-class, African-American, and homeless families are also discussed. Ms. Merrill/Offered every year

180 AGING AND SOCIETY/LECTURE, DISCUSSION

Focuses on the process of aging and older people in our society. Attention is given to the diversity of the aged and the impact of social structures on the aging process. Ms. Merrill/Offered every year

200 CLASS, STATUS, AND POWER/VARIABLE FORMAT

Analyzes the nature, dynamics, and historical development of social inequality. The economic and political power of the upper class, social mobility, the process of deindustrialization, feminization of poverty, and the intersection of race and class are studied. Mr. London, Mr. Ross, Ms. Tenenbaum /Offered every year. Required for the major. SOC 107 is a prerequisite

203 AMERICAN-JEWISH LIFE/VARIABLE FORMAT

Introduction to the social scientific study of American Jewry. Topics include immigration, economic mobility, intermarriage, Jewish feminism, American Judaism, ethnic identity, anti-Semitism, and political behavior. Throughout the semester, comparisons between Jews and other groups are highlighted. Ms. Tenenbaum/Offered every other year

205 SOCIOLOGY OF THE ENVIRONMENT/LECTURE, DISCUSSION

Introduction to environmental sociology, a newly emerging area of interest. Focuses on the reciprocal relationships between society and the environment. The theoretical perspectives of human ecology and political economy are used to illuminate topics such as population, technology, and environmental degradation, the environmental movement, north-south environmental conflicts, and food and hunger. Mr. London/Offered every year

225 RELIGION AND SOCIETY/LECTURE, DISCUSSION

This course introduces students to key theoretical and empirical works in the sociology of religion. We apply major theoretical perspectives to contemporary religious life. We ask how individuals find meaning in and are shaped by their experiences of religion. Special consideration is given to how gender, race and ethnicity influence religious life. We explore the rise of new religious movements (historical and contemporary), the relationship between religion and modernity, and elements of fundamentalism and conservatism in Christianity and Judaism. Staff/Offered periodically

231 MEANING, POLITICS, AND DIFFERENCE: SOCIOLOGY OF CULTURE/LECTURE, DISCUSSION

Presents an overview of the principal concepts, frameworks and theoretical approaches currently used in the sociology of culture and samples some of the major contemporary research in the field. The goal is to offer a range of approaches by which sociologists can examine and understand cultural forms and cultural phenomena. Readings focus on relations

between culture and history, culture and power, culture and politics, culture and resistance, and culture and local environments. The course is intended to engage contemporary debates in culture, rather than to offer a conclusive and synthetic definition of the field. SOC 010 or Communication and Culture 101 is a prerequisite. Open to juniors and seniors only.

Mr. Gordy/Offered every other year

232 POPULATION, ENVIRONMENT, AND DEVELOPMENT/VARIABLE FORMAT

Studies the statistical description and analysis of human populations. Focuses on relationships between and among social, cultural, political, and economic forces; and population structures, processes, and characteristics. Such demographic factors contribute to the understanding of social issues, such as the aging of the population, the changing status of women, rapid world urbanization, and Third World economic problems. Mr. London/Offered every year

241 SOCIOLOGY OF MEDICINE/LECTURE, DISCUSSION

Examines the role of health-care professionals and the health-care industry, as well as health and illness as social phenomena. The course also addresses problems in the health-care system at the national level and reviews potential solutions to the mounting crisis in the provision of health services. Ms. Merrill/Offered every year

242 HUMAN RIGHTS AND TRANSITIONAL JUSTICE/LECTURE, DISCUSSION

This course will explore the development of international law in relation to violations of human rights from the signing of the Hague and Geneva conventions to the present. The course will explore what approaches have been tried, the advantages and drawbacks of each, and the recurring dilemma faced by transitional regimes of whether to "trade justice for truth." The principal examples will be: the International Military Tribunals at Nuremberg and Tokyo; the investigative commissions appointed by South Africa, Argentina and

Chile; the International Criminal Tribunals for the former Yugoslavia and Rwanda; and the ongoing debate over the founding of the International Criminal Court. Mr. Gordy/Offered periodically

243 POLITICAL SOCIOLOGY/VARIABLE FORMAT

Examines various dimensions of political power in societies. Considers various definitions of power and the state. Empirical studies focus on political communities and political inequalities; states, bureaucracies, and "pressure;" political culture and political communication; and revolution. Emphasizes historical, comparative, and international dimensions. Mr. Gordy, Mr. Ross/Offered periodically

244 THE COMMUNITY/LECTURE, DISCUSSION

An analysis of one of the most enduring ideas at the heart of the discipline of sociology: the idea of community. How do we define "community"? What is the meaning of community for individuals and groups? How has the nature of community changed over time? And what are the central concepts, issues, theories, and methods used by sociologists in the writing of community studies? Mr. London/Offered periodically

249 THE SOCIOLOGY OF DEVELOPMENT AND UNDERDEVELOPMENT/LECTURE, DISCUSSION

Examines and analyzes the transformation of postcolonial, Third World societies undergoing capitalist or socialist development. The course discusses theories of development in a social, economic, and demographic context. It also explores the international division of labor, urbanization, and basic needs provision. Mr. London, Staff/Offered periodically

250 CULTURE, CONSUMPTION, AND CLASS IN LOCAL AND GLOBAL CONTEXTS/LECTURE, DISCUSSION

Focuses on political, cultural and ethnic aspects of consumption. Emphasizes how people and groups define themselves through symbols in consumer products. Examines the interplay between the world market and cultural identities, local and global processes, and con-

sumption and cultural strategies to discover the consumer subcultures. Students conduct a small ethnographic project on consumer pattern, product, or culture. Ms. Bhachu/Offered every other year

252 RACE AND AMERICAN SOCIETY/LECTURE, DISCUSSION

Focuses on the political, economic, and social lives of Native Americans, Latinos, African-Americans, and Asian-Americans. Topics discussed include racism, the civil rights movement, gender, class, popular culture, and public policies. A central assumption of this course is that we must turn to the historical experience to understand contemporary race relations. Ms. Tenenbaum/Offered every year

255 THE CREATION OF NATIONALISM, NATIONALIST CULTURES, AND SYMBOLS/LECTURE, DISCUSSION

At a time of rapid global changes and globalization, nationalisms and nationalist cultures have grown dramatically. This course explores how nationalist identities and resistance are determined by culture and the cultural symbols, such as key consumer commodities, cultural symbols, gender, and language and dress codes. Ms. Bhachu/Offered every other year

258 WOMEN IN JEWISH CULTURE/LECTURE DISCUSSION

Seeks to uncover the experiences of Jewish women and uses gender analysis to enrich our understanding of Jewish life. Raises questions about the status of women in texts, rituals, and communal practices from the biblical period to the present. Ms. Tenenbaum/Offered every other year

259 SOCIOLOGY OF ORGANIZATION/LECTURE, DISCUSSION

Examines the theory and practice of organizations. Students examine major concepts in the historical development of modern organizations (e.g., bureaucracy) and apply their learning to the investigation of contemporary problems and issues of complex organizations. Ms. Ewick/Offered periodically

260 ROOTS AND ROUTES: IMMIGRANTS, DIASPORAS AND TRAVEL/LECTURE, DISCUSSION

Examines immigrants and the cultures they create through movement and settlement and through the many borders they cross. Also covered is the diasporas immigrants create through the travel they undertake both voluntarily and in some cases through forced migration. How do borders, journeys, migration, diaspora shape the identities of individuals, groups, cultural objects and commodities?

Ms. Bhachu/Offered every year

262 LAW AND SOCIETY/LECTURE, DISCUSSION

Examines the relationship between law and other aspects of social life. Relying on case studies and other empirical studies of the legal system, particular attention is paid to the following topics: law and justice, crime and social control, law and social change, the legal profession, and legality and everyday life.

Ms. Ewick/Offered every year

263 DEVIANCE/VARIABLE FORMAT

Why are some behaviors, differences, and people stigmatized and considered deviant while others are not? This course examines theories of social deviance that offer answers to this and to related questions such as: how and why are behaviors designated as deviant; how do individuals enter a deviant lifestyle; and how do various social statuses, such as sex, affect the incidence, type, and responses to deviant acts. Ms. Ewick/Offered periodically

265 SOCIAL MOVEMENTS: QUEST FOR JUSTICE/VARIABLE FORMAT

Modern American movements (feminist, civil rights, etc.) are used as examples for discussion of social movements. Problems of recruitment, organization, and ideology are analyzed. The form of the course depends on the number of students registering. Mr. Ross/Offered periodically

270 EDUCATION AND INEQUALITY: RESEARCH AND WRITING

Focuses on the relationship between social class and the institution of education, on the effect that social class has had on both the pro-

duction and reproduction of our educational system, and on the connection between schooling and unequal educational opportunity. Mr. London/Offered periodically

273 EFFECTS OF MASS MEDIA/SEMINAR

The first half of the semester will be devoted to exploring the history and development of the most influential approaches to the study of effects. During the rest of the semester we will explore some critical contemporary issues through the lens of effects research. Groups of students will develop and carry out an original research project over the semester, and present the findings to the campus community.

Prerequisite: SOC 135 or instructor's permission. Mr. Gordy/Offered every other year

275 FAMILY ISSUES IN AN AGING SOCIETY/SEMINAR

Examines how the aging of our society has affected family life for both elders and younger generations. Particular attention is paid to the topic of family caregiving. Emphasizes a life-course perspective and gives attention to the impact of mid-life family events on later life relationships. Prerequisites: SOC 175 or SOC 180. Ms. Merrill/Offered every other year

282 CONTEMPORARY SOCIOLOGICAL THEORY/SEMINAR

Examines various currents in sociological theory which developed during the last half of the 20th century. Considers relationships between social theory, political ideology, and power. Topics may include, but are not limited to, feminist theory, cultural theory, globalization, and critical theory. Mr. Gordy/Offered occasionally

285 POVERTY/SEMINAR

Analyzes who is poor and how government policy affects the poor. Compares the U.S. experience to Western Europe, and addresses the question of whether there is a permanent underclass of poor people. Additional issues of policy and analysis vary by year. Prerequisite: SOC 200 or instructor's permission. Mr. Ross/Offered every other year

288 GLOBALIZATION: FASHION AND FOUL PLAY/ SEMINAR

Examines processes of economic and social development. Focuses on changes in the structure. Of industrial regions of the advanced capitalist countries, and changes in the structure of developing and more peripheral regions. The conceptual framework is that of a global capitalist system undergoing significant transformation in the development of labor and capital. Prerequisites: SOC 200 or instructor's permission. Mr. Ross/Offered periodically

290 CITIES IN GLOBAL PERSPECTIVE/SEMINAR

Based on three dimensions of comparison: historical; cross-national within advanced capitalism; and a contrast between the processes and structures of urbanization in the First and Third Worlds. Prerequisites: SOC 125 or instructor's permission. Mr. Ross/Offered periodically

294 GLOBAL ETHNOGRAPHIES: ETHNOGRAPHERS IN THE MAKING FOR THE 21ST CENTURY/SEMINAR

Focuses on emergent ethnographic concerns which attempt to capture fluid cultural processes and connections as they unfold in late 1990's global arenas. Deals with multiple-sited ethnography of movement, displacement, replacement, and the global traffic in culture. It also analyzes traditional ethnographies and ethnographic methods of the founding pioneers, including the work of the famous Clark University ethnographer Franz Boas. Prerequisites: SOC 160 or instructor's permission. Ms. Bhachu/Offered every year

296 INTERSHIP SEMINAR

Focus changes each year depending on faculty interest. Foci include gender, community organizing, and aging.

298 THESIS STUDIES

Independent study submitted for honors consideration for senior sociology majors. Students should sign up with the faculty member whose areas of interests are most suited to their own. The emphasis is on independent research undertaken with faculty guidance and supervi-

sion. Generally requires two credits in each semester of the student's senior year and culminates in a thesis submitted for honors consideration. Staff/Offered every year

299.1 DIRECTED READINGS IN SOCIOLOGY

Staff/Offered every semester

299.2 DIRECTED RESEARCH

Staff/Offered every semester

299.5 SPECIAL PROJECTS

Staff/Offered every semester

299 SEC. 9 INTERNSHIPS IN SOCIOLOGY

Supervised field training in community and organized settings is available. Internship is the equivalent of one to four full courses in sociology. Variable credit. Staff/Offered every semester

THEATER ARTS

(See Visual and Performing Arts)

VISUAL AND PERFORMING ARTS

Sarah Walker M.F.A., chair: *foundation studies, drawing, painting*

Visual and Performing Arts is composed of individual academic programs in art history, studio art, music, screen studies, and theater arts. Whether students prefer to study the history, criticism, philosophy, and theory of the arts or to engage in the creative activity of studio work, composition, or performance, there are courses, concentrations, minors, specializations, and majors available. A major in a given area can be the core for a preprofessional program; or, the student may cross traditional disciplinary lines—by double majoring, for instance, or by designing a major or combined major that includes two or more areas of study. Students, with a program director, may develop a four- or five-course sequence as a minor or an area of specialization. Majors and nonmajors are welcome to attend the many art exhibitions, film presentations, and musical, theatrical, and dance performances.

Because art reflects the trend of thought and the impact of events of its time, it relates to many other areas of study—history, philosophy, and psychology. The study of art thus enhances one’s understanding and appreciation of other disciplines. For students interested in the arts, humanities, or social and natural sciences, the study of art can provide both majors and nonmajors with an especially enriching liberal-arts education. Courses in art offer opportunities to develop critical skills, acquire resources for visual thinking and communication, and engage in personal creative expression. For both future art scholars and professionals, Clark’s art programs provide a solid foundation that will serve them well in their graduate studies or careers.

The department of Visual and Performing Arts is part of the Higgins School of Humanities.

ART HISTORY AND CRITICISM

Program Faculty

Gauvin A. Bailey, Ph.D., *program director: Renaissance and Baroque art; Asian art; Latin-American art*

Rhys F. Townsend, Ph.D.: *Ancient art and archaeology*

Visting Lecturers

Monica Kjellman Chapin, Ph.D. *modern art*

Adjunct Faculty

Jean Borgatti, Ph.D.

Peter E. Nulton, Ph.D.

Catherine W. Titus, Ph.D.

Emeritus

Samuel P. Cowardin III, Ph.D.

Undergraduate Program

The art-history major focuses on the visual arts and the social, cultural, and historical context in which art is created. Majors may take courses in Ancient, Renaissance and Baroque, and Modern art history, or other areas. For those considering teaching, museum and gallery

work, arts conservation, or arts management, the major is designed to meet the student’s needs and may include an internship at an appropriate institution.

The Art History Major

A total of 14 courses are required, 10 of which are art history courses.

Requirements:

- 1. Art History Courses
 - a. 010: From the Stone Age to Our Age (or equivalent course or superior advanced-placement performance)
 - b. 150: Methodology and Historiography
 - c. Eight courses in the following areas: Ancient, Renaissance/Baroque, Non-Western, Modern, with not more than two courses in any one area; a total of three must be at the 200 level.
- 2. Related Courses
 - Four courses in visual and performing arts, of which two must be in studio art. These courses must be selected in consultation with the adviser.

Double and Combined Majors

Because of its interdisciplinary nature, students may wish to double major in art history and another discipline. In such cases, the number of required courses is reduced to 11. Another option is the combined art history-studio art major. Eight art-history courses and three visual and performing arts courses normally serve as the art-history component of a double major or a student-designed major. A combined major, requiring a minimum of eight art-history courses, may be developed in consultation with the studio-art and art-history program advisers.

- 1. Art History Courses
 - a. 010: From the Stone Age to Our Age (or equivalent course or superior advanced placement performance)
 - b. 150: Methodology and Historiography
 - c. Six courses, of which four must include each of the following areas: Ancient, Renaissance/Baroque, Non-Western,

Modern. No more than two courses may be in any one area, and three must be at the 200 level.

2. Related Courses

Three courses in visual and performing arts, of which one must be in studio art. These courses must be selected in consultation with the adviser.

Honors in Art History

Requires the 14 courses for the art-history major, including a directed reading (299, Sec. 1) in the fall of the senior year and the senior honors thesis (299, Sec. 8) in the spring. Students wishing to take honors in art history should identify an area of interest, choose an appropriate adviser, and apply for eligibility to the art-history faculty before the end of the junior year. See the course description under ARTH 299 Sec. 8 Honors in Art History, for details.

Nonmajors

All courses and seminars in this program are open to nonmajors. Students whose major lies in another discipline may minor in art history. Six courses are required for the art-history minor.

The Art History Minor

Requirements:

1. 010: From the Stone Age to Our Age
2. Five additional courses, with no more than three in one area of specialization (i.e., Ancient, Renaissance/Baroque, Modern) and at least two at the 200 level.

Courses

010 FROM THE STONE AGE TO OUR AGE: MONUMENTS AND MASTERPIECES OF WESTERN ART/LECTURE, DISCUSSION

Begins with a reach back in time to the dawn of history 20,000 years ago when the earliest creators in the western world painted powerful images of animals on walls located in the eerie, dank depths of cave interiors. This startling act marked the beginning of communication through visual images. We will move chrono-

logically through history, exploring the major monuments and masterpieces of painting, sculpture, and architecture and the cultures which produced them. By focusing primarily, although not exclusively, on select key monuments—the Pyramids, the Parthenon, the Pantheon—and on the masterpieces of major artists—Raphael, Rembrandt, Renoir, Rothko (among others)—from prehistoric times to our own computer age, we will gain an understanding of visual culture and of the needs and aspirations that are expressed. Staff/Offered every semester

105 THE AEGEAN WORLD/LECTURE, DISCUSSION

An introduction to the architecture, sculpture, and painting of Egypt and the Aegean during the Bronze Age. The course covers the Old and New Kingdoms of Egypt; and the cultures of the Aegean islands, Crete, and mainland Greece. Examines artistic forms and traditions of each region in order to shed light on the individual religious and social contexts in which they evolved. Highlights the archaeologists whose discoveries have illuminated the history and artifacts of these lands. Field trips to area museums. Mr. Townsend/Offered every other year

106 INTRODUCTION TO ARCHAEOLOGY/LECTURE, DISCUSSION

Concentrates on the Mediterranean region, tracing the history and methods of archaeology—emphasizing its unique combination of the sciences and the humanities—from its first steps to its technologically advanced state today. Selected case studies will demonstrate how archaeology has illuminated the ancient world. Also examines the newly developed field of underwater archaeology. Mr. Townsend/Offered every other year

109 CLASSICAL MYTH AND THE GREEK IDEAL IN ART/LECTURE, DISCUSSION

Investigates selected classical myths and the concept of the “Greek ideal” as expressed in art, both in classical Greece and Rome and in various later periods, including the 20th century. Approaches the myths from the standpoint

of origin and significance, changing modes of representation, and manipulation for political purposes. The “Greek ideal” is also examined both as it originally developed and as it was conceived in subsequent ages. The course also considers the changing attitudes towards the classical world and the significance of the classical tradition in art and history. Field trips to area museums. Mr. Townsend/Offered every other year

110 ANCIENT GREEK ART/LECTURE, DISCUSSION

This intensive survey reviews Greek art from the collapse of the Minoan-Mycenaean world in the 12th-century B.C. to the close of the Hellenistic period in the first-century B.C. Geographically, it reaches from Greece itself, westward to the Greek cities of South Italy and Sicily, and eastward to the Hellenized lands of Asia Minor, Egypt, and the Near East. The course discusses the concept of artistic originality and stylistic development, the relationship between art and politics, and the contribution of Greek art to the history of the visual arts in the Western world. Field trips to the Worcester Art Museum and the Boston Museum of Fine Arts. Mr. Townsend/Offered every other year

111 ROMAN ART AND ARCHITECTURE/LECTURE, DISCUSSION

See Ancient Civilizations 111. Staff/Offered every other year

114 ANCIENT CITIES AND SANCTUARIES/LECTURE, DISCUSSION

Introduces the great urban and religious centers of the ancient world. The course examines the concept of the city as it first evolved in the Near East and as it developed in classical Greece and Rome. The course emphasizes both the design and structure of urban spaces and the factors affecting town planning. Discusses ancient sanctuaries not only as areas of religious worship, but also as centers of cultural activity involving theater, art, athletics, and politics. Cities and sanctuaries are viewed in their historical setting as part of the larger civilizations which nurtured them. Mr. Townsend/Offered every other year

124 ITALIAN ART FROM GIOTTO TO BOTTICELLI/LECTURE, DISCUSSION

Examines one of the most crucial periods in Western art, the Early Renaissance in Italy. Investigates painting, sculpture, and architecture in their cultural and historical contexts from the trecento (1300s) to the late quattrocento (1400s), with a focus on Tuscany and its flourishing capital, Florence. Explores the movement away from Byzantine and Gothic art toward a new, uniquely Italian style emphasizing humanity, realism, and science. Assesses how humanist studies, republican politics, monastic reform, and the emergence of a wealthy mercantile class affected artistic style and theory. Considers artists' growing self-awareness as professionals contributing to contemporary intellectual developments and the ideology of genius. Artists highlighted in this course include Giotto, Brunelleschi, Donatello, Ghiberti, Fra Angelico, Piero della Francesca, and Botticelli. Field trips to area museums. Mr. Bailey/Offered every other year

125 ART IN THE AGE OF MICHELANGELO/LECTURE, DISCUSSION

Focuses on the art of the 1500s in Italy, an era comprising the High Renaissance and Mannerism, perhaps the single most influential period in Western art after classical times. Investigates painting, sculpture, and architecture in the major Italian cultural centers of Florence, Rome, Milan, Parma, Mantua, and Venice. Considers questions of style, influence, patronage, art theory, and scholarly and religious developments. Highlights the work of Michelangelo, including the recently restored Sistine Chapel frescoes, the Medici Tombs, the *David* and the *Pietà*. Also considers the work of Leonardo da Vinci, Raphael, Correggio, Giorgione, and Titian, and their relationship to Michelangelo and his legacy. Looks at the rise of papal Rome and the building of St. Peter's basilica and the Vatican palaces. Mr. Bailey/ Offered every other year

131 BAROQUE ART IN THE AGE OF BERNINI/LECTURE, DISCUSSION

Considers Italian art and architecture from around 1580 to 1680, the age known as the Baroque. An era of astonishing artistic activity, it was marked by lavish patronage by popes, cardinals, and princes, centering on the cosmopolitan capital of Rome. This period was characterized by fundamental changes in society, including the birth of the Catholic church as a concept, new and revolutionary scientific discoveries, a new global awareness, and the growth of political absolutism. Explores how these developments informed the style, iconography, and patronage of art. Highlights Italian artists Caravaggio, Bernini, Borromini, and Pietro da Cortona, as well as foreigners working in Italy such as Poussin and Claude Lorrain. Topics considered include the rise of landscape painting, still life, and genre painting, as well as the concept of the Baroque unity of the arts. Field trips to area museums. Mr. Bailey/Offered every other year

140 MODERN ART: 19TH CENTURY/LECTURE, DISCUSSION

Examines neoclassicism, romanticism, realism, and impressionism. Studies the development of landscape painting in England and France, in relation to the rise of urbanization and industrialization, and the origins of an "avant-garde." Ms. Kjellman/Offered every other year

141 IMPRESSIONISM/LECTURE, DISCUSSION

Traces the development of impressionism over three decades: from the early works of Manet to the last Impressionist Exhibition in 1886. We examine in great depth both the stylistic development of individual artists—Manet, Monet, Renoir, Degas, Cezanne, Cassatt, and Morisot—and the intense cross-fertilization of ideas between and amongst these artists. In addition, the course examines the academic paintings of the Jonas and Susan Clark Collection to illustrate what kind of art the impressionists were reacting against as well as the very art that was popular when impressionism failed to win critical acceptance. Ms. Kjellman/ Offered every other year

142 MODERNISM/LECTURE, DISCUSSION

Begins in 1886, the year in which the 20th century arrived. After a brief survey of post impressionism, we trace the blossoming of the modern imagination in Fauvism, Cubism, German expressionism, Dadaism, and surrealism. Ms. Kjellman/Offered every other year

143 ART FROM 1945 TO 1965/LECTURE, DISCUSSION

Surveys the major movements of contemporary American and European art, including abstract expressionism, pop art, and earth art. Explores the increasing importance of the commercial environment, popular culture, and technology in the art of the sixties. Ms. Kjellman/Offered every other year

144 ART SINCE 1965

This course will survey contemporary art and the philosophical debates, which have informed it from a transnational perspective. While artists in the late '60s and '70s seemed to lay out many of the creative possibilities that artists continue to work with today. Recent artists have taken conceptualism, earthworks, site-specific art, body art, performance art, and installation art in unanticipated directions. Photography and the newer technologies of video and digital imaging have had a greater presence too, particularly in the return of storytelling staged as elaborate fictions and self-fabulations, which resist neat closures of meaning. But painting and sculpture continue to be reinvented in bold new ways by each generation as well, despite persistent announcements of their imminent demise. Staff/Offered every other year.

147 ART CRITICISM/LECTURE, DISCUSSION

Surveys the writings of selected American and English art critics active from 1945 to the present. Students become familiar with a variety of methodologies, including formalism, Marxism, and feminism. Critics include Clement Greenberg, Hilton Kramer, Lucy Lippard, T.J. Clark, and John Berger. Readings vary from year to year. Several field trips to Boston-area galleries and museums. Writing intensive. 143, Art 1945 to 1965, is recom-

mended but not required. Ms. Kjellman/
Offered every other year

148 GEORGIA O'KEEFFE, ALFRED STIEGLITZ AND MODERNISM IN AMERICA

Georgia O'Keeffe, and her association with the photographer, art patron, and gallery owner Alfred Stieglitz, will provide the point of entry for an exploration of early modernism in America. Stieglitz and his New York City galleries played a formative role in fulfilling the desire for a distinctly American form of modernism, which generally favored abstraction derived from natural forms, spiritual content, and rejected popular culture. Artists like Georgia O'Keeffe and Arthur Dove associated with the Stieglitz circle will present a counter-argument to another New York-based group of artists associated with the art collector Walter Arensberg. These artists embraced a machine aesthetic and popular culture and included the Europeans Francis Picabia and Marcel Duchamp and the American artists, Charles Sheeler and Stuart Davis. Staff/Offered every other year.

150 METHODOLOGY AND HISTORIOGRAPHY/LECTURE, DISCUSSION

This course is designed as an introduction to the various interpretative strategies used in the analysis of visual imagery, as well as to the principles underlying the construction of art history as a discipline. Over the course of the semester, we will examine in detail methodological approaches such as formalism, iconography, Marxism, feminism, psychoanalysis, and semiotics, not only in theory, but also in practice. We will also analyze the ways in which art history and aesthetics have been reconfigured and reformulated since its beginnings, in part under the impact of such methodologies. Ms. Kjellman/Offered every year

155 ART OF AFRICA, OCEANIA, AND SOUTHWESTERN NATIVE AMERICA/LECTURE, DISCUSSION

Focuses on the art of the Yoruba of southwestern Nigeria, the Northwest Coast Native Americans, and New Guinea, and considers the art forms, cultural settings, and distinctive

aesthetic in non-Western culture. Students will be expected to make aesthetic and stylistic judgments concerning selected original material. Ms. Borgatti/Offered every third term

156 ARTS OF BLACK AFRICA/LECTURE, DISCUSSION

Introduces art in the Western Sudan and Guinea Coast, the Niger Delta and Equatorial Forest, the Southern Savanna, and southern and east African fringe. Emphasizes formal, conceptual, and historical links between the cultures and art forms. Ms. Borgatti/Offered every third term

157 THE ARTS OF NORTH AMERICAN NATIVE PEOPLES/LECTURE, DISCUSSION

Examines the arts of the native peoples of North America, i.e., the arts of Woodland, Southeastern United States, Plains, Pueblo, Navajo, California, and Northwest Coast Indian groups as well as that of Alaskan and Canadian Eskimos. Studies the traditions from the contact period (1500-1900), and precontact traditions known from the archaeological record. Ms. Borgatti/Offered every third term

159 LATIN-AMERICAN ART/LECTURE, DISCUSSION

Surveys the art and architecture of Latin America, ranging from Argentina to the United States, from the pre-Columbian period to the present. Begins with an exploration of the art of Mesoamerica and the Andes before the arrival of the Europeans, including the Maya, Olmecs, Aztecs, and Inca. Explores the cultural convergence that resulted from the conquest in the 16th century, focusing on the role of Amerindian artists and traditions in the formation of early Colonial culture. Traces the development of the colonial arts, considering the role of civil and religious patronage, the rise of the art guilds, the international makeup of European cultures in the Americas, and the relationship with the arts of Spain and Portugal. Considers the rise of nationalism in the 17th and 18th centuries and its effect on the arts, including the revival of Amerindian forms by the independence movement in regions that would later become Peru and

Mexico. Explores the development of the arts from independence from Spain and Portugal in the early 19th century to the present, including a consideration of Chicano art in the United States. Field trips to area museums. Mr. Bailey/Offered every other year

160 THE ARTS OF ASIA/LECTURE, DISCUSSION

The 21st century has been called the “Asian Century” in anticipation of the leading role that Asia will play in the world’s economic, political, and cultural life. This course journeys through the history of the art and architecture of the most important civilizations in the Far East: China, Japan, and Korea. Begins with China, whose arts tradition developed in isolation for over a millennium before exerting a profound influence on the nascent visual-arts cultures of Japan and Korea about 2,000 years ago. Explores how those two regions developed unique art forms that were repeatedly still affected by new waves of influence from China. Considers ancient bronzes, scroll and screen painting, religious sculpture, ceramics and decorative arts, and architecture. Examines the function of these arts in society; the relationship between art and the great religions and philosophies of Daoism, Shinto, Confucianism, and Buddhism (especially Chan, or Zen Buddhism); the diversity of art patronage (emperors, warlords, monks, and literati); and the relationship of art to the past. Field trips to area museums. Mr. Bailey/Offered every other year

161 THE ARTS OF ISLAM/LECTURE, DISCUSSION

Islamic peoples make up one third of the world’s population, historically embracing regions as diverse as Spain, North Africa, the Middle East, India, and Central Asia. Their culture is dynamic and diverse, and intimately related to neighboring civilizations in Europe, the Far East, and Sub-Saharan Africa. Examines the art and architecture of Islam from the lifetime of the Prophet Muhammad (d. 632) to the present. Considers the development of the mosque and madrasa (religious college), miniature and mural painting, ceram-

ics, ivory, metalwork, textiles, and other arts. Explores the religious disinclination toward figural art and the growth of the “arabesque,” or geometrical/floral patterns. Also examines the flourishing figural tradition that existed in nonreligious art. Monuments considered include the Alhambra in Granada, the Great Mosque of Damascus, the Dome of the Rock in Jerusalem, and the Taj Mahal. Field trips to area museums. Mr. Bailey/Offered every other year

215 THE TEMPLE BUILDERS: ARCHITECTURE IN ANCIENT GREECE/SEMINAR

Traces the evolution of monumental architecture in Greece from its origins in the Geometric period through its development in Archaic, Classical, and Hellenistic times. Emphasizes the integration of craftsmanship, or *techne*, with elements of design in the Doric, Ionic, and Corinthian orders. Discusses the relationship between architect and patron, the social role of architecture, and its political impact, as well as the problems of modern investigation and reconstruction of ancient buildings. Mr. Townsend/Offered periodically

216 ARCHITECTURE AND DEMOCRACY/SEMINAR

This seminar will explore the relationship between the built environment and civic ideology in ancient Athens and 20th-century America. “Built environment” refers to structures in, through, and around which a society functions and includes both private and public buildings and spaces. “Civic ideology” means ideas that embody the collective beliefs and aspirations of the citizen body. In particular we will be interested in the relationship between the individual citizen and the state in ancient Athens and 20th-century United States and the means by which architecture acts to construct that relationship. Area field trips. Mr. Townsend/ Offered every other year

218 ART IN THE AGE OF ALEXANDER THE GREAT/SEMINAR

By his death in 323 B.C., at age 33, Alexander the Great had conquered most of the known world, his empire stretching from Greece to

the Indus River Valley of India. In the process, he transformed this region into a polyglot, multicultural mix that has been compared to the global village in which we live today. This course examines the life and times of Alexander and his followers through the record of the material culture they left behind: architecture, sculpture, painting, gold, coins, jewelry, and everyday artifacts. It specifically examines how culture is shaped by such material goods, and uses an historical perspective to gain insight to the ever-changing profile of our society today. Trips to area museums. Mr. Townsend/Offered every other year

219 SPECIAL TOPICS: ANCIENT ART/SEMINAR

Introduces specific issues and approaches in the study of ancient art. The course develops the student's research, oral presentation, and writing skills through intensive study that is not possible in a survey course. While the seminar is designed for majors, qualified students from other disciplines are welcome. Course may be taken for credit more than once. Mr. Townsend/Offered periodically

230 CARAVAGGIO/SEMINAR

Focuses on the work of one of the best known artists of any period, the painter Michelangelo Merisi, or Caravaggio (1573-1610). Although he died a young man in 1610, he is often considered the most important painter of the 17th century. Explores Caravaggio's intense naturalism and the controversy it caused, his sense of drama and supernatural light, and the role of his personality in works of art. Surveys his life in Rome, Naples, Malta, and Sicily, considering his religious paintings, genre scenes, and still lifes. Considers the contradictory aspects of his character: his sexual ambivalence, his criminal violence, and his intense spiritual devotion. Explores his artistic legacy in Italy and abroad. Readings include art-historical scholarship, history, and original documents from the period. Field trips to area museums. Mr. Bailey/Offered periodically

232 CONVERGING CULTURES IN THE AGE OF DISCOVERY/SEMINAR

A critical assessment of the notion of hybrid art, focusing on the period of European discovery of non-European civilizations from the 16th through 18th centuries. Explores the impact of European Renaissance and Baroque art in a global context, including the Far East, Southeast Asia, India, and the Americas. This age of global encounter involved intimate contact between the widest spectrum of peoples, representing different races and religions, as well as political, social, economic, and cultural systems. Considers the role of missionaries, merchants, and colonial powers in bringing European art to the non-European world, and the differing degrees of contact/conquest that existed between them. Primary focus is on the reaction of non-European cultures such as the Chinese and Nahua (Aztecs) to the new styles and iconographies from Europe, and the perpetuation of indigenous symbols, styles, and ideas in the art produced after contact with Europeans. Evaluates the new art styles that were developed as the cultures began to merge, and questions whether transcendent styles or aesthetics emerge from the prolonged interaction of cultures. Mr. Bailey/Offered periodically

239 SPECIAL TOPICS: RENAISSANCE AND BAROQUE ART/SEMINAR

Introduces specific problems in Renaissance and Baroque art and focuses on student research, oral presentation, and writing skills. Qualified students from other disciplines are welcome. Mr. Bailey/Offered periodically

247 ART HISTORY AND KITSCH/SEMINAR

This course takes a detailed look at one of the most denigrated aspects of visual production: kitsch. Our investigation will involve both objects designated as kitsch and theoretical writings on kitsch aesthetics and kitsch's relationship to art and the avant-garde, as well as the related issues of originality, authenticity, and reproducibility. Ms. Kjellman/Offered every other year

248 GENDER, ART AND SOCIETY/SEMINAR AND PRACTICUM

Explores the social and cultural construction of femininity and masculinity and the ways in which these are expressed in art and popular culture. Ms. Grad/Offered every other year

249 SPECIAL TOPICS: MODERN ART/SEMINAR

Introduces specific topics in the study of modern art. Research and writing intensive.

Qualified students from other disciplines are welcome. Ms. Kjellman/Offered periodically

Special Offerings

299 SEC. 1 DIRECTED READING

Staff

299 SEC. 2 DIRECTED RESEARCH

Staff

299 SEC. 3 DIRECTED WRITING

Staff

299 SEC. 4 FIELD PROJECT

Staff

299 SEC. 5 SPECIAL PROJECT

Staff

299 SEC. 6 SPECIAL TOPICS

Staff

299 SEC. 8 HONORS IN ART HISTORY: SENIOR YEAR

Qualified students who take Honors in Art History should identify an area of interest, select an appropriate adviser, and apply for eligibility to the art-history faculty before the end of the junior year. The honors thesis is a year-long project, for which the student will take 299.1 Directed Reading or 299.2 Directed Research, in the fall of the senior year and 299.8 Honors in Art History, in the spring semester. A second reader, chosen by the student and the adviser, will participate in the final evaluation. Credit is given for course work completed, even if a student is not recommended for honors. Staff/Offered every year

299 SEC. 9 INTERNSHIP

Staff

STUDIO ART

Program Faculty

Elli Crocker, M.F.A., *program director:*

drawing, painting

Sarah Buie, M.F.A.: *graphic design, museum design and interpretation*

Sarah Walker, M.F.A.: *drawing, painting*

Part-Time Faculty

Frank Armstrong, B.J.: *photography*

Valerie Claff, M.F.A.: *foundation studies*

Stephen DiRado, B.F.A.: *photography*

Elaine Froehlich, B.F.A.: *graphic design*

Jennifer Hilton, M.F.A.: *printmaking*

Fred Simon, B.S.: *video production*

Kirk Jalbert, B.S.: *photography*

Ann Tracy, M.F.A.: *sculpture*

Cynthia Wilson, B.F.A.: *graphic design*

Emeritus

Donald W. Krueger, M.F.A.: *foundation studies, drawing, painting, illustration*

Undergraduate Program

This major is designed to meet a number of student needs and interests: preprofessional preparation for graduate study and/or a career in art, design, art education, arts management, art therapy, or other arts-related fields; the satisfaction of personal interest in art and design; significant involvement in the creative process; and a meaningful focus of liberal education.

The studio-art major affords a high degree of flexibility in developing a program suited to individual needs and changing interests. A strong advising program assists students in curriculum planning, identifying areas of major interest, and preparing for graduate study or a career. Areas of specialization include drawing and painting, photography, graphic design, printmaking, sculpture and three-dimensional design, and video production.

In addition to course offerings, there are also exhibitions of the work of contemporary artists, course-related exhibitions, and exhibitions of senior thesis work in the University Gallery; field trips to galleries and museums as part of several studio courses; and, in the

University Center's Craft Studio, opportunities for extracurricular involvement in arts and crafts activities.

The Studio Art Major

The major normally consists of 14 courses: 11 studio courses and three art history courses. The foundation courses—100 and 102—are required of majors. The foundation art-history course (ARTH 010) must be one of the three art-history courses. The studio courses, with approval of the program adviser, may include studios in music, theater arts, and cartography as well as student-initiated nontraditional experiences. In certain circumstances, fewer studio-art courses—but no less than eight—fulfill the major. Admission to the studio-art major is selective, and students must maintain an above-average academic record.

Honors in Studio Art

Students with a strong interest in art and design, a commitment to intensive study, and who have at least a B average may, with department approval, elect the honors sequence: a two-semester, two-credit senior thesis. Students are expected to use the thesis to develop a body of preprofessional studio work in preparation for graduate study or a career in the arts. The thesis must be done as a senior, and will be reviewed by a faculty panel, with selected works from the thesis exhibited at the end of the year. Credit is given for course work completed, even if a student is not recommended for honors.

Combined and Double Majors

Eight studio courses and two art-history courses normally serve as the studio-art component of a double major or a student-designed major. A combined studio art-art history major, requiring a minimum of eight studio courses, may be developed in consultation with the studio-art and art-history program advisers.

Nonmajors

Studio-art courses are open to all students, majors and nonmajors alike; and certain studio courses satisfy the University's aesthetic per-

spective requirement. Those students interested in studio art but majoring in other disciplines may develop a complementary four- or five-course sequence in any of the fields of study within the program, such as graphic design or photography, among others.

Courses

100 and 102 are studio foundations designed to introduce students to the nature of visual language and the creative process, while encouraging the development of visual expression. As the aesthetic perspective outlines, "artistic expression and the perception, analysis, and evaluation of aesthetic form" will be explored in a fundamental manner. At least one of these studio foundation courses is required of majors and strongly recommended for nonmajors as preparation for additional work in studio art.

100 VISUAL STUDIES: 2D DESIGN AND COLOR/STUDIO, LECTURE, DISCUSSION

Considers visual perception and visual problem-solving/figure-field relationships, two-dimensional pattern and form, and theory and dynamics of color. Open to nonmajors. Each semester, section one (*Basic Design*) will be a project-based class exploring design elements and principles. Section two (*Pathway of the Senses*) will emphasize a more intuitive and sensory approach to design basics, exploring sound, poetry, landscape and memory as inspiration. Fulfills the aesthetic perspective.

Ms. Claff/Offered every year

102 VISUAL STUDIES: DRAWING/STRUCTURE AND PROCESS/STUDIO, LECTURE, DISCUSSION

Addresses the mechanics and expressive potential of drawing. Traditional illusionistic drawing techniques will be combined with exercises which facilitate personal expression and subjective response. In exploring the relationship between seeing, thinking, and making, the beginning student will acquire fundamental skills in image making and insight into the creative process in general. Fulfills the aesthetic perspective. Ms. Crocker, Ms. Walker, Ms. Tracey/Offered every year

**107 INTRODUCTION TO VIDEO PRODUCTION/
STUDIO, LECTURE, DISCUSSION**

Workshop in seeing and thinking in electronic imaging techniques and processes. Open to nonmajors. Mr. Simon/Offered every semester

**120 INTRODUCTION TO PHOTOGRAPHY/STUDIO,
LECTURE, DISCUSSION**

Introduction to black-and-white photography emphasizing the zone system and including camera operation, developing, printing, and finishing techniques. Students must have a variable setting 35 mm camera with a built-in or hand-held exposure meter, and must provide their own film and paper. Open to nonmajors. Mr. DiRado, Mr. Armstrong, Mr. Jalbert, Staff/Offered every semester

**121 INTERMEDIATE PHOTOGRAPHY/STUDIO,
LECTURE, DISCUSSION**

Continues the refinement of photographic seeing through darkroom techniques, digital imaging and alternative processes. We will consider a broad spectrum of aesthetic, formal and conceptual issues in the field of fine-art photography, while students will be encouraged to develop a personal vision. Some reading and writing required, as is a field trip. Students will meet weekly for critiques and lectures, concluding the semester with a comprehensive portfolio. Open to nonmajors. Prerequisite: 120 or acceptable portfolio, with instructor permission. Mr. DiRado, Staff/Offered every year

**124 INTRODUCTION TO GRAPHIC DESIGN/STUDIO,
LECTURE, DISCUSSION**

Introduction to the language, process, and potential of graphic design as communication. Exercises and applied problems emphasize the relationship between form and meaning, typography, image making, and conceptual development. Ms. Buie and Ms. Wilson/Offered every year

**125 GRAPHIC DESIGN PROJECTS/STUDIO,
LECTURE, DISCUSSION**

Intermediate-level projects in graphic design, with reference to particular design media such as books, identity, maps, exhibit design, Web

sites, etc. Emphasis on exploring conceptual development and the problem-solving process. (Knowledge of Mac-based page layout programs is helpful, but not required.) Prerequisite ARTS 124 or permission of the instructor. Ms. Wilson/Offered every year

128 DRAWING: SENSE OF PLACE

Students will engage the environment of Worcester by drawing on site at a variety of locations, from abandoned factories to Victorian parks, a littered railbed to a wooded Quaker cemetery. By actively looking, we will forge a connection to this city, while recognizing other relationships to place—including the archetypal places we carry or inhabit within ourselves. The emphasis will be on learning how to see where we are and to be more fully aware of how this relationship to place defines us. Globalization, Internet intimacy, easy mobility, and politics may all influence our understanding and feelings about place, but there is perhaps nothing so immediate and illuminating as the act of simply perceiving and translating the world around us. Artists who have referenced or manipulated “place” in their work will also be studied. Ms. Crocker/Offered every year

**129 DRAWING: FIGURE/STUDIO, LECTURE,
DISCUSSION**

Focuses on the human form through various drawing methods, with analysis of the structure and anatomy of the body as well as exploration of the expressive potential and symbolic associations of the human figure. Ms. Crocker, Ms. Tracey/Offered every year

**132 BEGINNING PAINTING/STUDIO, LECTURE,
DISCUSSION**

Introduces the fundamentals of craft and explores the synthetic possibilities of paint, while discussing the conceptual basis for this medium (“Why paint?”). Focuses on material—both the materials employed by the painter, and the materials the painter simulates. Painting as a vehicle for thinking and communication will be stressed. Fulfills the aesthetic perspective. Ms. Crocker, Ms. Walker/Offered every year

133 INTERMEDIATE PAINTING/STUDIO, LECTURE, DISCUSSION

A continuation of the study of painting with increasing emphasis on individual development and direction. Alternative media, experimental approaches to the depiction of form and space, and nonobjective imagery will be introduced. Prerequisite: ARTS 100 and/or 102, ARTS 132 or instructor permission.

Ms. Crocker, Ms. Walker/Offered every year

136 INTRODUCTION TO SCULPTURE/STUDIO, LECTURE, DISCUSSION

Introduces the modes of three-dimensional creation through a variety of traditional and contemporary materials and concepts.

Alternating emphasis on sculptural objects, the human figure, and issues of architectural/environmental expression. Open to nonmajors.

Fulfills the aesthetic perspective. Ms. Tracy/Offered every year

137 SCULPTURE PROJECTS/STUDIO, LECTURE, DISCUSSION

Intermediate-level course leading to the development of personal direction and expression in three-dimensional form. Open to nonmajors.

Prerequisite: instructor permission. Ms. Tracy/Offered every year

158 INTRODUCTION TO PRINTMAKING/STUDIO, LECTURE, DISCUSSION

Introduces the techniques and aesthetic of intaglio printing—primarily hard and soft ground etching methods, embossment, and aquatint—on metal plates. The course may include methods of engraving, drypoint, and collagraph. Open to nonmajors. Fulfills the aesthetic perspective. Ms. Hilton/Offered every year

161 PRINTMAKING/MONOTYPE/STUDIO, LECTURE, DISCUSSION

Introduces the techniques and aesthetic of monotype printing. Ms. Hilton/Offered every year

162 EXPLORING THE NATURAL WORLD: SEEDING ARTISTIC PROCESS WITH DRAWING, MONOTYPE AND MIXED MEDIA.

This class explores the natural world as visual model and studies organic process as a metaphor for artistic process. With close obser-

vation of Nature's forms and structures, students sharpen their eyes and experiment with different field-drawing techniques. Numerous drawing expeditions produce a collection of images to use as seeds for finished drawings and prints. Students are encouraged to experiment with a variety of materials and create an individual final project in one or more of the media covered. Prerequisite: one of the following: ARTS 100, 102, 128, 129 or instructor permission. Ms. Claff/Offered every year

170 STORYTELLING THROUGH VIDEO: DOCUMENTARY AND DRAMATIC PRODUCTION/STUDIO, LECTURE, DISCUSSION

Students in this class will produce one or two "storytelling" videos. Students may work in either the documentary or dramatic genre, and may work individually or collaboratively on each project. All preproduction, production, and postproduction work will be done outside of class (including preparation of scripts or treatments, shooting, separate sound or archival recording if necessary, and editing). In addition to production work, students will also keep a journal in which they will record insights they derive from the filmmaking or film viewing related to this course.

Prerequisite: ARTS 107 or appropriate or instructor permission. Mr. Simon/Offered every year

174 CONTEMPORARY DIRECTIONS/STUDIO, LECTURE, DISCUSSION

Experiential examination of current movements, directions, styles, and attitudes in art. Open to nonmajors. Prerequisite: appropriate introductory course(s) and/or instructor permission. Staff/Offered periodically

182 TECHNICAL THEATER

See Theater Arts 120. Mr. Weinrobe/Offered every year

184 DESIGN FOR PERFORMANCE

See Theater Arts 123. Mr. Weinrobe/Offered every year

200 PHOTOGRAPHY PROJECTS/STUDIO, LECTURE, DISCUSSION

Continues the study of the techniques and aesthetics of black-and-white photography.

Students have the opportunity to pursue individual photographic projects in the size and format of their choice. Open to nonmajors. Prerequisite: 120 and/or 121. Mr. DiRado, Staff/Offered every year

204 SACRED SPACE/LECTURE, DISCUSSION, PROJECTS

Explores traditional and contemporary experiences of the sacred in spatial terms—through study of spatial and natural archetypes (i.e., mandala, threshold, cave, mountain); of geometric harmonies in nature, art, and architecture; of sacred and secular architectural forms (temple, stupa, shrine, indigenous village architecture); of geomancy or the relationship between built and natural environments; and of ancient and contemporary expressions of the natural world as Gaia, manitou, or sacred geography. Permission of instructor required. Ms. Buie/Offered every year

205 EROS AND THANATOS/SEMINAR, DISCUSSION, PROJECTS

An interdisciplinary seminar exploring the nature of the life-energy we call eros, and its relationship to thanatos, or death, with an emphasis on deepening our understanding of our relationship to the natural world. Permission of the instructor required. Cross-referenced with philosophy. Permission required. Ms. Buie and Mr. Wright/Offered in alternate years

208 TYPOGRAPHY/STUDIO, LECTURE, DISCUSSION

Study of the informational and expressive dimensions of typographical language. The history and technology of type is considered, with an opportunity to handset metal type as well as do extensive work on the computer. Applications to a variety of problems, including letterhead, poster, and publication design. Prerequisites 124 and/or 125, or permission of instructor. Ms. Buie/Offered every year

209 INTRODUCTION IN INTERACTIVE DESIGN

Explores the basic principles of interactive design and development for the computer screen and the Web in general, through lectures, critiques, workshops and assignments. Ms. Froehlich/Offered every year

234 STUDIO TOPICS/STUDIO, LECTURE, DISCUSSION

Preparation for the senior thesis undertaken in the spring semester, but may be taken by other interested advanced-level studio-art students in various concentrations. This interdisciplinary course is structured as a seminar and requires extensive student participation in discussions, as well as independent creative work in a chosen medium. Topics will revolve around both timeless and highly contemporary issues confronting the artist in the making of his/her work. Will involve readings and some writing. Prerequisite: at least three studio-art courses. Ms. Crocker, Ms. Walker/Offered every year

250 PHOTOGRAPHY STUDIO/STUDIO, DISCUSSION

Advanced, professionally oriented, individual photographic study. May be taken for credit more than once. Prerequisite: appropriate intermediate and advanced photography courses and instructor permission. Mr. DiRado, Staff/Offered every year

254 GRAPHIC DESIGN STUDIO/STUDIO, LECTURE, DISCUSSION

Advanced applied problems involving the role of designers in professional practice, working with clients and organizations. Consideration of the role of and opportunities for design in meeting communication needs. Prerequisites 124 and/or 125, or permission of the instructor. Ms. Buie/Offered every year

258 ADVANCED STUDIO/CAPSTONE/STUDIO, DISCUSSION

Students will refine technical ability in a chosen medium, sharpen critical-thinking abilities, and develop a personal iconography. Independent work and thematic progression is encouraged. May be taken for credit more than once. Prerequisite: appropriate beginning/intermediate courses or instructor permission. Ms. Crocker, Ms. Tracy, Ms. Walker

266 SCULPTURE STUDIO/STUDIO, DISCUSSION

Professionally oriented, individual study of sculpture, and spatial and three-dimensional design. May be taken for credit more than once. Prerequisite: appropriate sculpture experience

rience and instructor permission. Ms. Tracy/
Offered periodically

270 PRINTMAKING STUDIO/STUDIO, DISCUSSION
Professionally oriented, individual study in
printmaking. May be taken for credit more
than once. Prerequisite: appropriate printmak-
ing experience and instructor permission. Ms.
Hilton/Offered every year

**278 VIDEO PRODUCTION STUDIO/STUDIO,
DISCUSSION**
Advanced projects in video production. May
be taken for credit more than once.
Prerequisite: appropriate intermediate-level
video production courses and instructor per-
mission. Mr. Simon/Offered every year

280 SENIOR STUDIO/STUDIO, DISCUSSION
Advanced, preprofessional, independent work
under faculty supervision, in one of the studio
media. May be taken for credit more than
once. Prerequisite: appropriate advanced cours-
es and program director permission.
Staff/Offered every year

289 SENIOR THESIS
Honors program for studio-art majors in any
concentration. Working independently, but in
close consultation with the instructor and
interaction with the class peer group, the stu-
dent will prepare a cohesive and mature body
of work to be presented in a group exhibition
in the University Gallery and to a faculty com-
mittee with oral and written support. This
work should demonstrate original thinking and
a high level of technical mastery. Prerequisite:
234 or instructor permission. Ms. Crocker,
Ms. Walker/Offered every year

Special Offerings

299 SEC. 4 FIELD PROJECT
Staff

299 SEC. 5 SPECIAL PROJECT
Staff

299 SEC. 6 SPECIAL TOPICS
Staff

299 SEC. 9 INTERNSHIP
Staff

MUSIC

Program Faculty

Benjamin Korstvedt, Ph.D.: *musicology,
critical and historical study of music and culture,
German and Austrian musical culture in the 19th
and 20th centuries*
Matthew Malsky, Ph.D.: *composition, music
theory and analysis, history and practice of
music technology*
John McGinn, DMA: *theory, composition and
performance*

Part-Time Faculty

James Allard: *saxophone*
Donald Boothman, B.A.: *voice*
Richard Cain, M.Mus.: *string bass*
Andrew Clark, M.Mus.: *director of choral
activities*
Peter Clemente, M.Mus.: *classical guitar*
Maria Ferrante, B.A.: *voice*
James Fidlon, M.Mus.: *director of jazz studies,
jazz studies, jazz guitar*
Susanne Friedrich Cohen, *cello*
Malcolm Halliday, M.Mus.: *piano*
Bruce Hopkins, M.Mus.: *trumpet*
Kallin Johnson, M.Mus.: *keyboard skills*
Martin Kelly: *voice*
Boris Kogan, M.Mus.: *cello*
Sima Kustanovich, M.Mus.: *piano,
accompanianist, ensemble*
Timothy McCall, B.Mus.: *jazz saxophone*
Steve Mossberg, *jazz piano*
Richard A. Odgren, B.Mus.: *jazz piano*
Robert Schulz, M.Mus.: *percussion*
Peter Sulski, *violin and viola*
Paul Surapine, B.Mus.: *clarinet*
Douglas Weeks, M.Mus.: *trombone, low brass*

Adjunct Faculty

Hartmut Kaiser, Ph.D.: *German romanticism,
music, literature, aesthetics*

Emeritus

Gerald Castonguay, Ph.D.: *musicology*
Wesley M. Fuller, M.Mus.: *theory,
composition, electronic and computer music*

Undergraduate Program

The program offers both a major and a minor, as well as courses and activities for the nonmajor. Courses are designed to teach students to listen to music intelligently, to develop musical perception, to master basic skills of music and apply them creatively, and to acquaint students with representative works from various periods of music history. The study of music can open new perspectives on many aspects of culture and society and the program stresses the advantages of combining professional musical development with the humanistic breadth offered by a strong liberal education.

Courses are open to majors and nonmajors, and assignments are designed to suit the different goals and backgrounds of the students in each category.

The Music Major

Fourteen courses are required for the music major:

Requirements:

1. Theory: 121, 122, 223, 224 (includes aural/keyboard skills labs)
2. Music History: 101, 102, 103
3. Private Study: 180 (Two semesters—one unit each—of private instruction taken after completion of Music 121)
4. Performing Groups: a minimum of four semesters in 170, 171, 172, 173, or 174.
5. One seminar at the 200 level, either in history or in theory/composition.
6. Two music electives, selected from computer music, world music, history, and theory seminars, or two additional semesters of 180. Students may also fulfill this requirement through tutorials, directed readings, or special projects. For the nonhonors major, the second elective—taken during the senior year—is a capstone project fulfilled by taking 299 Directed Reading, 299 Special Project, or a second seminar at the 200 level.
7. Related areas: two courses, one within visual and performing arts in art history, studio art, theater arts, or screen studies; and one out-

side visual and performing arts in areas that relate to the major. For example, a major in the music-history track focusing on French music of the late 19th and early 20th centuries could select a course dealing with the French language, French literature, European history, or cultural theory.

8. Successful completion of skills labs (Aural Skills I & II, Keyboard Skills I & II), which are taken concurrently with theory and performance classes.

The four semesters (two required, two optional) of private-lesson fees for the major are covered by regular-tuition payment.

Honors

Admission to the honors program is by approval of the music faculty. Students may elect to pursue one of five different honors tracks: history, theory, composition, performance, or music technology. Students apply to the honors program in history, theory, composition or music technology at the beginning of the junior year. Students must apply to the honors program in performance at the beginning of the freshman year. Prospective majors who wish to pursue honors in performance must request an audition and assessment of their potential regarding the honors performance track at the end of their first year. Formal admission into the honors performance track begins at the start of the sophomore year.

Honors in History, Theory, Composition, or Music Technology

The 14 courses required for the music major, plus a project (a total of 15 courses) are required. The honors student will replace the two music electives of the music major (item six of the requirements) with study in a special area through either seminars or directed studies. These two special electives lead into the capstone project for the honors program (Music 299), where the student will develop a thesis in history or theory, an extended composition, or applications in music and technology.

Honors in Performance

The 14 courses required for the music major, plus two additional semesters of private study, and a senior capstone project culminating in a recital (a total of 17 courses), are required. The honors student will replace the two music electives of the music major (item six of the requirements) with two semesters of private lessons for credit (MUSC 180). Two semesters of MUSC 280 (for a total of six semesters of private study) culminate in a full recital and a companion capstone project (MUSC 290) dealing with the stylistic analysis of the music to be performed in the recital. At least four appearances in student recitals, including a half recital during the junior year, precede the senior recital. The lesson fee in the honors performance track is covered by regular-tuition payment during the sophomore through senior years. It is strongly urged that MUSC 121 and 122 be successfully completed by the end of the first year.

Nonmajors

All of the courses, seminars, and activities in the music program—with the exception of senior tutorials (MUSC 230, 240, 250, 260)—are open to qualified nonmajors. Students who have a strong interest in music but whose major lies in another discipline can declare a minor in music. The music minor centers on a core of studies in one of five specific areas.

The Minor in Music

Requirements:

1. MUSC 010 Introduction to Music
2. MUSC 110 Rudiments of Music (or Music 121, Theory I)
3. One course from the 100-level history or theory courses that would link to work in student's specific area of specialization (e.g., MUSC 103 Twentieth Century, for the minor in music technology)

4. Three additional courses in one of five specific areas of music:

a. Minor in Performance

Three semesters of MUSC 180. (For information on tuition coverage, see MUSC 180). Students wishing to specialize in performance should arrange for an audition by contacting the program director. Audition will determine acceptance into the minor.

b. Minor in Music Technology

MUSC 140 Computer Music
MUSC 142 Interactive Music
Programming Composition
Studio/Seminar
MUSC 270 Directed Studies in Computer Music

c. Minor in Jazz Studies (offered through the Worcester Consortium)

MUSC 150 Jazz Theory
MUSC 151 Jazz History
MUSC 250 Tutorial in Jazz Composition

d. Minor in Music History

Any three of the following music-history courses and/or 200-level music-history seminars:

MUSC 101 Medieval, Renaissance, Baroque
MUSC 102 Classical and Romantic Periods
MUSC 103 Twentieth Century
MUSC 210 History Seminar

e. Minor in Music Theory

MUSC 121 Theory I: Tonality 1
and any two of the following:
MUSC 122 Theory II: Tonality 2
MUSC 223 Theory III: Counterpoint
MUSC 224 Theory IV: 20th-Century Practice

Performing Organizations

Nonmajors and majors may audition for a variety of organizations which rehearse regularly and perform several yearly concerts. These groups include the Clark Concert Choir and Chamber Chorus, Instrumental Chamber Ensembles, Clark Concert Band, and the Jazz Workshop Ensembles.

Private Lessons

Private lessons for nonmajors and majors are offered with or without course credit in several areas. See MUSC 180 Private Instruction for Instruments and Voice (for credit for majors and minors) and MUSC 018 Private Instruction for Instruments and Voice (noncredit).

Preprofessional Programs

Students interested in such professions as music therapy, multimedia, concert management, ethnomusicology, or music education may combine music courses with appropriate courses from other disciplines to create an individually designed major. The requirements for such preprofessional programs are jointly determined by the student and an advisory committee made up of one music faculty member and two faculty members from other disciplines.

Although the music program does not offer specific courses in music education, music majors interested in music education may take courses in the music curriculum, in conjunction with teaching courses through the education department. For more information, contact the education department.

Introductory Courses

010 INTRODUCTION TO MUSIC/LECTURE, DISCUSSION

Designed for the nonmajor, the course expands the concept of the musical experience and develops discriminating listeners. The course includes an introduction to principles of rhythm, pitch, timbre (and their notations); the principles of structure; the aesthetics of music; specific forms including fugue, sonata form, variations; and selected historical styles. Staff/Offered every semester

011 MUSIC AS CULTURE/LECTURE, SEMINAR

Students study and listen to the differences and likenesses in music from a wide variety of cultures and consider the ways in which music, ranging from classical art music to music for work and communal celebration, functions within a selected group of world cultures.

Includes guest performers of ethnic music. Staff/Offered every year.

012 POP MUSIC IN THE USA/LECTURE, DISCUSSION

Beginning with what is (arguably) the start of the popular in American music, this course will examine Tin Pan Alley, Blues, Country, R&B, Swing, early Rock 'n Roll, Motown, the Folk Revival, the British Invasion, Psychedelic Rock, Progressive Rock, Punk, Disco, Heavy Metal, as well as some more recent music. The course will focus on understanding the stylistic and historical practices of this wide range of popular music. The principle perspective of the class will address popular music as an audible text as an artifact of—and contributor to—popular music culture. No previous musical experience (such as the ability to read or play music) is assumed. However, a willingness to listen to all of this music carefully, and to engage a variety of theoretical approaches is presumed. Mr. Malsky/Offered periodically

110 RUDIMENTS OF MUSIC/LECTURE, TUTORIAL, LAB

Fundamentals of music requiring no previous musical training. Students learn to understand, hear, and write the basic elements of the pitch and rhythmic notation system. Skills gained enable students to pursue private instrumental or vocal instruction, and to begin work in composing. Mr. McGinn, Mr. Malsky/Offered every year

Music History Courses

101 MEDIEVAL, RENAISSANCE, BAROQUE/LECTURE, DISCUSSION

Survey that ranges from early Christian chant, the medieval song, and the motet to the music of Renaissance and Baroque genres focusing on the major composers of the periods. Mr. Korstvedt/Offered every year

102 CLASSICAL AND ROMANTIC PERIODS/LECTURE, DISCUSSION

Survey beginning with the music of 18th-century Vienna and focuses on the music of Haydn, Mozart and Beethoven and major figures of 19th-century romanticism. Mr. Korstvedt/Offered every year

103 TWENTIETH CENTURY/LECTURE, DISCUSSION

Explores the abandonment of functional tonality after 1900 and its replacement with new musical systems, and the remarkable rejections and explorations which characterize the musical world after 1945. Studies the varied styles and the spirit of experimentation that is particularly characteristic of the second half of the century is an important focus of the course.

Staff, Mr. Malsky, Mr. McGinn/Offered every year

210 HISTORY SEMINAR

For the advanced music student, rotating topics that include: Fin-de-Siecle Paris; Beethoven: The Man and His Music; Amadeus: The Life and Music of Mozart; French Impressionism; Wagner, the Jews, and the Nazis. Prerequisites: 101 and 102 or instructor permission. Mr. Korstvedt/Offered every year

230 SENIOR TUTORIAL IN MUSIC HISTORY

Develops work (e.g., a paper, composition, or performance) in consultation with the instructor. For majors only. Prerequisite: instructor permission. Staff/Offered every semester.

With program director permission, the following courses offered by other departments may be taken for music history, criticism and theory credit.

GERMAN 168 MUSIC IN GERMAN LITERATURE AND THOUGHT

See Foreign Languages and Literatures.

Music Theory Courses

121 THEORY I: TONALITY 1/LECTURE, TUTORIAL, LAB

Explores the system of tonal music commonly employed by composers of the 18th and early 19th centuries, as well as by composers of popular music today. This study, incorporating exercises, composition, analysis, and performance, also examines the way students listen to music in general, thus leading to a deeper understanding of the musical process.

Mr. McGinn, Mr. Malsky/Offered every year

122 THEORY II: TONALITY 2/LECTURE, TUTORIAL, LAB

Deals with problems in analysis, composition, and orchestration in the chromatic style of the 19th century. Uses and analyzes the works of Beethoven, Chopin, Schumann, Wagner, and Brahms as compositional models. Prerequisite: 121. Mr. McGinn, Mr. Malsky/Offered every year

223 THEORY III: COUNTERPOINT/LECTURE, TUTORIAL, LAB

For the advanced music student, studies the styles and procedures used by composers throughout the development of western art music as models for independent creative work. While emphasizing counterpoint as a procedure, students are expected to have a good background knowledge of music theory and history. Prerequisites: 121, 122 . Mr. McGinn, Mr. Malsky/Offered every year

224 THEORY IV: 20TH CENTURY PRACTICE/LECTURE, TUTORIAL

Analyzes compositional techniques of major 20th-century composers and uses them as a basis for composition and analysis assignments. Prerequisite: 222 or instructor permission. Mr. Malsky, Mr. McGinn/Offered every year

140 COMPUTER MUSIC STUDIO/LECTURE, DISCUSSION

The computer is, arguably, the most distinctively contemporary musical instrument. A project-based and historically grounded introduction to the computer as a musical tool, this course covers a variety of technical topics such as multi-track digital recording and mixing, the fundamentals of sound synthesis, and digital signal processing. A series of cumulative technical assignments through the semester lead to a large composition project. A variety of musical repertoires will be studied through recordings and readings. Permission of instructor required. Mr. Malsky/Offered every year

142 INTERACTIVE MUSIC PROGRAMMING AND COMPOSITION STUDIO/SEMINAR

Interactive music refers to a composition or improvisation in which software interprets live performances to produce music generated or

modified by computers. This course will present both musical concepts and programming techniques for students to produce performable music compositions. Topics will include advanced digital sound synthesis, signal processing, and interactive MIDI applications. Prerequisite: MUSC 140 or permission of instructor Mr. Malsky/Offered every year

150 JAZZ THEORY/LECTURE, TUTORIAL

Includes a study of the rhythmic/harmonic/melodic structures of jazz, the scalar basis of improvisation, and voicing practice as it pertains to scoring for small and large ensembles. Prerequisite: MUSC 110 or passing of placement examination in rudiments. Mr. Fidlon/Offered periodically by permission

151 JAZZ HISTORY/LECTURE, TUTORIAL

Studies the evolution of jazz style from its 19th-century beginnings to the present, including: African roots, minstrels, ragtime, Dixieland, swing, bop, progressive, cool, free-form, and third-stream. Requires a research paper and a final exam. Mr. Fidlon/Offered every year

160 SOUNDTRACKS/LECTURE

This class will focus attention on the soundtrack both through hands-on practicum experience in making soundtracks, and by introducing students to analytic/interpretive methodologies that highlight music and sound in the cinematic experience. Some introductory experience in either music or screen is required. Additional lab time required for project/studio work, and several evening screenings. Prerequisite: MUSC 121 or 140 or Studio Arts 167 or Screen Studies 101. Mr. Malsky/Offered periodically

200 NEW MEDIA THEORY AND PRACTICE STUDIO/SEMINAR

A seminar/production class designed to explore the ideas and techniques surrounding the simultaneous use of multiple digital media to create artistic work for CD-ROM, installation, Internet, and performance. Examines the fields of computer music, hypertext, digital video and computer animation and graphics in order to

provide impetus for experimentation with new integrated art forms. The theoretical writings of Benjamin, Landau, Altman, Negroponte, and others will be the basis for the study of historical, cultural and social contexts.

Prerequisites: MUSC 141, Screen Studies 207, Studio Art 209 or permission of instructor. Mr. Malsky/Offered periodically

220 THEORY/COMPOSITION SEMINAR

Topics include: composing the Greek chorus; film and sound; form and analysis; composition. Prerequisites: MUSC 121, 122, 223, 224. Mr. McGinn, Mr. Malsky/Offered every year

240 SENIOR TUTORIAL IN COMPOSITION

Develops work (e.g., a paper, composition, or performance) in consultation with the instructor. For majors only. Prerequisite: instructor permission. Mr. McGinn/Offered every semester

250 TUTORIAL IN JAZZ COMPOSITION

Student writes original scores for performance by a workshop ensemble. Prerequisite: MUSC 151 and permission of program director. Mr. Fidlon/Offered periodically

260 SENIOR TUTORIAL IN THEORY

Student develops work (e.g., a paper, composition, or performance) in consultation with the instructor. For majors only. Prerequisite: instructor permission. Mr. McGinn, Mr. Malsky/Offered every semester

Performance Courses

180 PRIVATE INSTRUCTION IN INSTRUMENTS AND VOICE

Areas offered include: piano, jazz piano, voice, jazz vocal, clarinet, saxophone, flute, classical guitar, jazz guitar, violin, viola, French horn, trumpet, bassoon, trombone and low brass, cello, percussion, string bass, and conducting. Lessons are taken for course credit. Students enrolled in MUSC 180 meet weekly with an instructor, attend either aural or keyboard skills labs, and participate in an ensemble. In areas not currently offered at Clark, the music program will find a qualified instructor. Award of credit in the off-campus study requires special permission from the program director. No cred-

it is awarded for off-campus study in those areas currently available at Clark. Prerequisites: for the minor, MUSC 010 and either MUSC 110 or MUSC 121; Qualified students may begin lessons prior to or along with MUSC 010 and either MUSC 110 or MUSC 121. Approved minors receive three semesters of lessons covered by tuition, majors receive two semesters of lessons (with options available with permission for one or two additional semesters covered by tuition), and majors in the Honors Performance track receive six semesters of lessons covered by tuition. Specific details are available in the music program office. Staff/ Offered every semester

280 PRIVATE INSTRUCTION IN INSTRUMENTS AND VOICE (HONORS LEVEL)

Areas offered: Same as 180 above. Students enroll in MUSC 280 for the final two semesters of the honors track, and a full recital is required as the culminating project for those two semesters. Prerequisites: 4 semesters of MUSC 180. Staff/Offered every semester

018 PRIVATE INSTRUCTION IN INSTRUMENTS AND VOICE

Lessons are taken for noncredit. Areas offered: same as MUSC 180 above. Lessons taken for noncredit require no prerequisite and are recommended for beginners. The fee is not covered by tuition. Staff/Offered every semester

Special Offerings

290 CAPSTONE PROJECT

299 SEC. 1 DIRECTED READING
Staff

299 SEC. 2 DIRECTED RESEARCH
Staff

299 SEC. 3 DIRECTED WRITING
Staff

299 SEC. 4 FIELD PROJECT
Staff

299 SEC. 5 SPECIAL PROJECT
Staff

299 SEC. 6 SPECIAL TOPICS
Staff

299 SEC. 7 DIRECTED STUDY IN COMPUTER MUSIC
Staff

299 SEC. 8 HONORS
Staff

299 SEC. 9 INTERNSHIP
Staff

The following musical activities are open to all undergraduate and graduate students. Auditions are held during the first week of each semester. Although no credit is awarded, the transcript of any undergraduate who completes the assigned performance requirements will include a listing of the particular activity for which he or she was registered.

170 CLARK CONCERT CHOIR/REHEARSAL, PERFORMANCE

A chorus of 30 to 40 voices, the choir presents two major concerts each year on the Clark campus as well as in off-campus appearances. Mr. Staff/Offered every semester

171 CLARK CHAMBER CHORUS/REHEARSAL, PERFORMANCE

This is a small, specialized singing group chosen from the larger Clark Concert Choir by the conductor. Admission is by audition. Staff/Offered every semester

172 CONCERT BAND/REHEARSAL, PERFORMANCE
Concert Band consists of 25 members performing two major concerts a year. Staff/Offered every semester

173 CHAMBER MUSIC ENSEMBLES/REHEARSAL, PERFORMANCE

The number of small ensembles is determined by the performing talent in a given semester. Standing ensembles include string, woodwind, mixed brass, jazz vocal. Admission is by audition. Staff/Offered every semester

174 JAZZ WORKSHOP AND COMBO/REHEARSAL, PERFORMANCE

Includes ensemble performance practice with weekly rehearsals throughout the year. An audition is required. Mr. Fidlton/Offered every semester

SCREEN STUDIES

Program Faculty

Marcia Butzel, Ph.D.: *program director: French cinema, film and the other arts, screen theory and criticism*

Timothy Shary, Ph.D.: *American cinema, film genre, television studies*

Fred Simon, MFA.: *video and electronic-media production*

Adjunct Faculty

Marvin D'Lugo, Ph.D., *Spanish and Latin-American cinema*

Walter Schatzberg, Ph.D.: *German cinema*

Undergraduate Program

Clark offers one of the few undergraduate programs in the nation that specializes in screen studies, which deals with arts and artifacts of the moving two-dimensional image, usually combined with sound. It is concerned, in other words, with the study of film, television, video, and evolving forms of digital visual media. The program offers both a major and a minor, and stresses the importance of a liberal-arts background, for the screen arts touch upon and are affected by all sectors of contemporary culture and society. Screen studies provides a core of basic and advanced knowledge of the screen arts and media while encouraging students to explore diverse connections and influences, ranging from the visual arts, drama, literature, and aesthetics to sociology, psychology, history, and economics.

Nonmajors take screen-studies courses to acquire knowledge that relates to their interests in other disciplines, to gain a better understanding of the roles film and television play in their everyday lives, or to understand the importance of the screen media as cultural and artistic forms. Those considering careers in the screen arts or related areas usually major in screen studies. In addition to being of special benefit for those planning graduate study or a career in the communications fields, the major also may be of interest to those seeking a liberal-

arts education that speaks directly to questions of contemporary life, culture, and the arts. Students interested in film and video production may take the program's sequence of production courses and gain production experience through professional internships.

The Screen Studies Major

Students majoring in screen studies enroll primarily in courses on the history, theory, and criticism of film, broadcast television, and other forms of electronic media. Requirements include courses in screen studies and courses in a related area, which may be discipline-specific (such as history, English, a foreign language/culture) or interdisciplinary (such as communication studies). The coherence of the related area is determined by the student and his or her major adviser. The major consists of at least 13 courses—a minimum of 10 courses in screen studies (see item 1 of the requirements below), and at least three courses in a related area, with one of those three courses at the advanced level (see item 2 below). For a course to provide credit toward the major, a letter grade of C or better must be achieved.

Requirements:

1. Majors are required to take a minimum of 10 courses in screen studies. Of the 10 screen studies courses, four are specifically required:
 - a. SCRN 10 Introduction to Screen Arts (to be taken as early as possible)
 - b. SCRN 107 Introduction to Video Production, or its equivalent
 - c. SCRN 114 Writing About Film: Critical Approaches
 - d. SCRN 121: International Film Art Movements

In addition to these specific required courses, majors must complete:

- a. At least one screen-history course such as SCRN 119 American Film From Its Origins Through WWII; SCRN 120 American Film Since WWII; or SCRN 122 History of American Broadcasting and Electronic Media.

- b. One course in video production at a more advanced level than SCRN 107, or another production course such as Music 140, Studio Art 100, Studio Art 120, Studio Art 124, Theater 120, or Theater Arts 212. (Students should choose the arts production course in consultation with their major adviser.)
 - c. One course on a national cinema such as SCRN 250 New German Cinema; SCRN 252 Asian Cinema; or SCRN 263 Studies in French Cinema.
 - d. One advanced topics course resulting in a major term paper, or advanced production project, chosen from SCRN 289, 288, or 299.5
 - e. Two additional elective screen-studies courses to bring course work to the 10 required screen-studies courses.
2. Majors must demonstrate competence in a related area pertinent to the student's particular emphasis in screen studies. Requirements for the related area may be met by: completing requirements for a double major, or by completing three courses (chosen in consultation with the major adviser) which together form a coherent group. Suggested related areas are: Screen Arts Production; Foreign Language and Culture; or Politics, Society, and the Audiovisual Media. One course in the related area must be at the 200 level.

Honors in Screen Studies

Students with a strong interest and commitment to advanced study in the program and who have completed at least six screen studies courses with at least a B+ average, may, with the program's approval, elect the honors sequence: SCRN 289 Advanced Topics or equivalent and a one- or two-unit senior thesis. Students are expected to use the honors course to develop an extensive research project on some aspect of film history, criticism, or theory selected with their major adviser. Students planning to go on to graduate work in screen

studies are encouraged to apply for the honors sequence.

All students interested in the honors sequence must apply to the screen-studies program director in the second semester of the junior year.

Internships, Study Abroad

As an elective, one unit of internship credit (299 Sec. 9 Internship) can be counted toward the major. In past years, students have held internships with local and regional media concerns, such as WCCA-TV in Worcester and WHDH-TV in Boston, and with independent production companies in New York and London. Students have also interned at a large, local archive of historic film posters and advertising. Majors have opportunities for study abroad, often by pursuing 1-2 units of academic course work and an internship during one semester. Clark's London Program has been the primary sponsor for study abroad in the major.

Nonmajors

All of the courses, seminars, and activities in the screen-studies program are open to qualified nonmajors. Students who have a strong interest in screen studies but whose major lies in another discipline can declare a minor in screen studies. The minor consists of six courses.

The Screen Studies Minor Requirements:

1. 010 Introduction to Screen Arts
2. 107 Introduction to Video Production
3. One screen-history course selected from SCRN 119, 120, 121, or 122
4. One course on a national cinema such as SCRN 250, 252, or 263 or another 200-level course
5. SCRN 114 Writing About Film: Critical Approaches
6. One elective in screen studies chosen in consultation with a program adviser.

Courses

Note: The courses listed below are designated as lecture, discussion, or seminar. However, all screen-studies courses include viewing of films and/or television programming. Students are usually required to attend separate screening periods in addition to lecture, discussion, or seminar sessions.

10 INTRODUCTION TO SCREEN ARTS/LECTURE, DISCUSSION

Introduction to film and related screen media, with emphasis on critical thought and analysis. The course begins with attention to aspects of filmmaking activities — such as cinematography, editing, and sound — then explores more contextual screen areas such as art film traditions, screen genres, auteur theory, gender and representation, etc. Students actively analyze films in detail to foster an understanding of screen styles and meanings. Fulfills prerequisites for advanced screen-studies courses. Mr. Shary/Offered every semester

107 INTRODUCTION TO VIDEO PRODUCTION/STUDIO, LECTURE, DISCUSSION

Workshop in seeing and thinking in electronic imaging techniques and processes. Open to nonmajors, with preference to majors. Mr. Simon/Offered every semester

114 WRITING ABOUT FILM/SEMINAR

Considers a variety of critical methods for the analysis and interpretation of film. The course considers several important kinds of writing about film, including journalistic film criticism and analysis based in film theory. Students actively practice all of these modes of writing to acquire the analytic skills used in upper-level courses. The major critical approaches or methodologies of film studies such as formalist criticism, genre criticism, auteur criticism, and forms of ideological criticism are explored in coordination with weekly films. Students (other than first year) interested in screenwriting should consider SCRN 108/English 108: Introduction to Screenwriting.

119 AMERICAN FILM FROM ITS ORIGINS THROUGH WWII/LECTURE, DISCUSSION

The history of the emergence and entrenchment of the Hollywood studio production system and the consolidation of a style of filmmaking now described as the classical Hollywood cinema. Topics to be covered include: silent filmmaking; the emergence of the star system, feature-length narrative filmmaking and film genres; the disruption of the coming of sound; the impact of the Depression and two World Wars; and the start of Hollywood's golden era. Mr. Shary/Offered every other year

120 AMERICAN FILM SINCE WWII/LECTURE, DISCUSSION

The history of post-WWII American cinema is the story of an ongoing series of adjustments to (or developments within the context of) instability in postwar film business: film noir, 3-D, biblical epics, blockbusters, art film influences, “new blood” from TV and film schools, Black filmmaking, revisionist genre films, high-concept filmmaking, etc. Further complicating this process of adjustments, cinema was overlaid onto, and consequently influenced by, the political turmoil within American society in general: the “Red Scare,” the Vietnam War, the emergence of a mass counterculture, the antiwar movement, Watergate, Reaganomics, the end of the Cold War, and increasingly vocal demands by women and minorities for social equality (and media representation). Mr. Shary/Offered every other year

121 SURVEY OF INTERNATIONAL FILM ART MOVEMENTS/LECTURE, DISCUSSION

Broad survey designed to acquaint students with major foreign movements in cinema history. Includes readings on and screenings of examples selected from Italian silent epics, German Expressionist and Weimar cinema, Soviet montage school, Soviet socialist realism, British documentary school, Nazi cinema, Italian neorealism, Japanese classical cinema, French New Wave, post-New Wave political cinema, Third World cinema, New German Cinema, and various Eastern European schools. Ms. Butzel/Offered every year

122 HISTORY OF AMERICAN BROADCASTING AND ELECTRONIC MEDIA/LECTURE, DISCUSSION

This course considers how broadcasting and electronic media have been developed over the past century. We will examine the technical achievements of the field as well as its social and aesthetic impacts: from early electrical and wireless communication (telephone, radio), to midcentury inventions (television, satellites), and more recent innovations (cable, digital technology). We will sample a wide range of media productions, including early radio and TV shows, documentaries, and current media phenomena. Students will do some of their own historical research on broadcasting to supplement the course material. Mr. Shary/Offered every other year

123 FACTUAL FILM AND TELEVISION/LECTURE, DISCUSSION

An overview of film and television genres associated with factual and documentary filmmaking. A wide array of documentaries are used to examine sociocultural topics, such as art, gender, modernity, and race. Focuses particularly on how certain stylistic means of filmmaking shape our understanding of subject matter and themes. Recent experiments with cinema, such as performativity, surrealism, and reenactment — that blur the line between fiction and fact — will also be addressed. Staff/Offered every other year.

130 FILM GENRE/LECTURE, DISCUSSION

Devoted to the study of the major storytelling formats into which much narrative filmmaking (especially that of the American cinema) may be categorized. The course considers theoretical perspectives, formal description, historical background, and social implications of genres such as the western, gangster film, musical, melodrama, etc., and through this work enables students to engage in and experience the interpretive insights of this critical perspective on the cinema. This course is taught as a variable topic, and may be offered as either an overview of several film genres or as a course concentrating on intensive study of a particular genre. Staff/Offered every other year

140 FILM AUTHORS AND AUTHORSHIP/LECTURE, DISCUSSION

Examines the theory and practice of film authorship through a consideration of works by major American and international film authors. Studies historical development of the idea of film directors as authors in Europe and the United States. Emphasizes the impact of such theories on the study of various American figures, which may include Hawks, Ford, Hitchcock, and Coppola, as well as international figures. Also examines the formation of film authorship in emerging cultural contexts, such as women's cinema and new national cinemas. Ms. Butzel/Offered every other year

161 CRITICAL PERSPECTIVES ON TV CULTURE/LECTURE, DISCUSSION

Pursues fundamental questions about television through the complex mechanisms of contemporary criticism and popular culture. To understand how television functions, for instance, you must understand certain aspects of its mechanics, economics, and politics. To understand what television means to people, we confront a matrix of even more varied human dimensions, which are more difficult to identify. How is television studied? How is meaning created through the audio/visual domain of television? How does that meaning come to be popular? What is at stake in the production and consumption of television? Mr. Shary/Offered every other year

171 STORYTELLING THROUGH VIDEO: DOCUMENTARY AND DRAMATIC PRODUCTION/STUDIO, LECTURE, DISCUSSION

Students in this class will produce one or two storytelling videos. Students may work either in the documentary or dramatic genre, and may work individually and collaboratively on each project. Class time will be used for viewing and discussing the students' videos as they progress, and viewing and analyzing professionally made films and videos. All preproduction, production, and postproduction work will be done outside of class (including preparation of scripts or treatments, shooting, separate sound or archival recording, if necessary, and editing).

In addition to production work, students will also keep a journal in which they record insights they derive from the filmmaking or film viewing related to this course. Many of the works screened in the course are regionally produced, and some of the filmmakers will appear with their films. Mr. Simon/Offered once a year

207 INTRODUCTION TO DIGITAL/NONLINEAR VIDEO EDITING/STUDIO, LECTURE, DISCUSSION

Digital nonlinear editing is revolutionizing how films and videos are created. Using a professional nonlinear video editing system (Apple's Final Cut Pro), students will learn the technology, art, and craft of digital editing. Working from footage shot for this course, each student will create a finished piece using Final Cut software to digitize, edit, and create a variety of effects and titles. Prerequisite: 107 and permission of instructor. Mr. Simon/Offered once a year

246 STUDIES IN SPANISH CINEMA/LECTURE, DISCUSSION

See Spanish 246. Mr. D'Lugo/Offered periodically

248 STUDIES IN LATIN-AMERICAN CINEMA/LECTURE, DISCUSSION

See Spanish 248. Mr. D'Lugo/Offered periodically

249 STUDIES IN HISPANIC CINEMAS/SEMINAR

See Spanish 249. Mr. D'Lugo/Offered periodically

250 THE NEW GERMAN CINEMA/LECTURE, DISCUSSION

See German 150. Mr. Schatzberg/Offered periodically

252 ASIAN CINEMAS/LECTURE, DISCUSSION

How different was/is the Asian cinema from the classical Hollywood cinema which has dominated the world's commercial filmmaking as a model to be either imitated or resisted? The course addresses the issue of difference "from the outside" by engaging in: the study of

the history of various Asian film industries; identification of the characteristic storytelling formats of Asian cinema; formal analysis of the stylistic signatures of its master directors (such as Kurosawa, Ozu, Ray, Yimou, Woo); and study of western criticism's discourse on these national cinemas. Staff/Offered every other year

263 HISTORY OF FRENCH CINEMA/LECTURE, DISCUSSION

France has produced more than a century's worth of cinema that has defined film as an art form and as a mode of cultural production. Distinctive films can be found in every historical period, from the earliest "cinema and attractions" to art-house auteur dramas or popular genre films (comedies, polars, and heritage films) on screens today. Of the major world cinemas, French cinema has also been most successfully nationalist of national cinemas. Since World War II, France has regularly subsidized its film industry, campaigned against Hollywood dominance in "the audiovisual trade" (during the 1993 GATT talks, for example), and politicized its filmmakers (as in the 1997 protests against government persecution of undocumented immigrants and minorities). Taught in English. Prerequisite: 010 and 114, or permission

284 FILM AS NARRATION/LECTURE, DISCUSSION

Explores the relationship between storytelling and cinema, from the perspectives of filmmaking craft, critical analysis, film history, the psychology of the spectator, and sociopolitical factors. Students acquire vocabulary and concepts to analyze fictional and factual narratives ranging from early-American shorts to contemporary international features. Some consideration will also be given to television series and to interactive digital media as narrative. Specific topics covered include: narrative and nonnarrative sources of films; literary and filmic versions of the detective story; D.W. Griffith and the development of the integrated narrative film; serials and series, sequels and remakes;

“assertive” versus “invisible” modes of narration; oral cultural tradition and film.

Prerequisite: 010 and 114

288 GENDER AND FILM/VARIABLE FORMAT

Explores the ways that gender is produced by the “social technologies” of film and video. Examines concepts of sexual difference (masculinity and femininity) and organizing representation, narrative, and spectatorship in Hollywood and alternative cinemas, and in some television and video. Will also study the history of women’s cinema. Readings will be primarily theoretical and critical, featuring the contributions of feminist film scholars and critics. Ms. Butzel, Mr. Shary/Offered every other year

289 ADVANCED TOPICS IN SCREEN STUDIES/SEMINAR

Advanced studies of specific issues and approaches in screen arts. Topics vary and include: inventing the feature film; the idea of a national cinema; the youth film as a genre; psychological approaches to film narrative; non-Western filmmaking. Students produce a major term paper. Prerequisite: SCRN 010 and 114, or instructor permission. Staff/Offered every year

Special Offerings

299 SEC. 1 DIRECTED READING

Staff

299 SEC. 2 DIRECTED RESEARCH

Staff

299 SEC. 3 DIRECTED WRITING

Staff

299 SEC. 4 FIELD PROJECT

Staff

299 SEC. 5 SPECIAL PROJECT

Staff

299 SEC. 6 SPECIAL TOPICS

Staff

299 SEC. 9 INTERNSHIP

Staff

THEATER ARTS

Program Faculty

Raymond J. Munro, M.A.H., *program director: directing, acting theory, independent narrative video*

Gino Dilorio, M.F.A.: *playwriting, modern drama, acting, Shakespeare*

Part-Time Faculty

Nadia S. Mahdi, M.A.: *voice, acting*

Christine Weinrobe: *scenic, lighting, and costume design, technical theater*

Catherine Quick Spingler, M.A.: *costume design*

Diane Hovenesian, B.A., C.A.T.: *Alexander Technique*

Jay Hovenesian, B.A., C.A.T.: *Alexander Technique*

Adjunct Faculty

Paul Burke, Ph.D.

Michael K. Spingler, Ph.D.

Virginia Vaughan, Ph.D.

Undergraduate Program

At the core of the theater program lies the strong belief that a liberal-arts education is inherently inseparable to the artist’s process. This relationship provides a cornerstone for the practice and study of theater, as theater by its very nature is a multidisciplinary art form. The theater program is designed to attain a balance between a strong liberal-arts education and intensive study in the student’s chosen area of focus.

The program places a strong emphasis on performance as a teaching tool for students at many different levels of work. Each semester, the program presents professionally directed productions of classic and contemporary theater. There are also opportunities to act and direct in student sponsored classes, workshops and productions. Theater productions are open to all Clark students. The program is designed to meet the needs of the major who may eventually wish to pursue a professional career in theater, as well as the nonmajor, who may simply want to gain a greater understanding of the play or the performance process.

The Center for Contemporary Performance is a scholarly community of directors, composers, playwrights, choreographers, film/video makers, and critics devoted to the creation, development, and publication of contemporary works of art. The center is designed to enhance the academic work of the University by organizing and focusing advanced learning through seminars and directed study in music, theater, film, design, literature, and aesthetics. The center enables students and faculty to work with visiting artists and outside performance groups, thereby enriching their educational experience and the creative process. Advanced students are encouraged to develop creative and theoretical projects to take advantage of the critical evaluation and supervision available through the Center for Contemporary Performance.

The theater-arts major is designed to offer an interdisciplinary framework that serves as foundation for the student to enter their primary area of expertise. Once the basic course requirements have been fulfilled, there is a great deal of flexibility in developing a program well suited to the individual needs and interests of the student. The faculty takes a proactive role in the design of this program, preparing the student to enter their chosen field or next level of study.

The Theater Arts Major

The major consists of 15 courses: five core courses, five specialty courses (focusing on the student's area of expertise and interest), and five related courses (chosen to complement the student's professional program). The five core courses are required of all majors. Majors may specialize in acting, directing, technical theater, theatrical dramatic criticism and playwriting, as well student-initiated areas of study and focus. Students may also major in theater with an emphasis on literature and dramatic criticism. Related courses are to be chosen in consultation with an adviser and are to be weighted heavily toward a sound liberal-arts education.

Required of all majors:

1. Core Courses

- 112 The Creative Actor
- 212 Actor as Thinker
- 153 Modern Drama
- 144 Drama of the Western Tradition
- 120 Basic Technical Theater

2. Specialty Courses

Five theater-arts courses specializing in a single area (eg, acting, directing, technical theater, dramatic criticism, theatrical design, playwriting). At least two of these courses must be at the 200 level.

3. Related Courses

A set of five courses outside theater arts but related to the student's area of specialization, (e.g. performance projects, internships, directed readings, or courses in English, literature, music, history, philosophy) and selected in consultation with the student's adviser.

The Capstone Requirement

The capstone experience for both majors and minors will usually be participation in or working on productions, often in the form of a special project, directed reading, directed research, field project, or internship. Such projects might include directing a play, researching a role, building a show, stage managing, or writing a play, and might involve working in/on visual and performing arts productions, student productions, and production off campus. In some cases, the capstone experience might be a critical or research paper or thesis.

Honors Program

Students with distinguished academic records who wish to take honors in theater arts should consult the program director early in their junior year, to identify a project of interest and choose an honors adviser. The student is expected to use the honors program to develop an independent work, which displays their skills and capabilities in their chosen field. This can take the form of writing a play, performing a role, etc., with an emphasis on

attaining a professional standard of work. The thesis must be performed and/or presented as a senior and will be reviewed by a faculty panel.

Nonmajors

All courses and seminars in the theater-arts program are opened to qualified nonmajors. Students whose major lies in another discipline can declare a minor in theater arts, developing a complementary sequence of courses in any field within the program.

Courses

107 INTRODUCTION TO VIDEO PRODUCTION/STUDIO, LECTURE, DISCUSSION

Workshop in seeing and thinking in electronic imaging techniques and processes. Open to nonmajors. Mr. Simon/Offered every semester

109 CONTEMPORARY WOMEN PLAYWRIGHTS

This course is designed to introduce the student to the works of major women playwrights of the past 100 years, from Susan Glaspell and Lorraine Hansbury to modern-day writers such as Paula Vogel and Anna Deavre Smith. The major focus of the course is the text and the student's understanding, interpretation, and personal opinion of the work. However, a strong emphasis will also be placed on the performance aspect of these plays. This can take many forms, including coordination of our efforts with theater classes on campus, field trips to theaters nearby, use of video, and even staged readings of the scripts in class. Mr. DiIorio/Offered periodically

111 VOICE AND DICTION/STUDIO, TUTORIAL

An intensified phonetic approach to articulation and voice production with some emphasis on speech for the stage and for public occasions. Several laboratory sessions will be provided for individual coaching by the instructor. Staff/Offered every year

112 THE CREATIVE ACTOR/STUDIO

Through a series of workshops, the student becomes familiar with the basic tools necessary to the art of acting. The approach is based on the techniques of Stanislavski, Viola Spolin, Joseph Chaikin, Robert Cohen, and original

exercises, including an introduction to basic voice and movement for the actor. Limited to 25 students. Mr. Munro, Mr. DiIorio/Offered every semester

116.1 MOVEMENT FOR THE PERFORMING ARTIST: THE ALEXANDER TECHNIQUE

The Alexander Technique is a mind/body teaching method that employs experiential learning. The course will focus on moving and thinking freely in the artistic process and everyday life. Students will learn how to recognize and change habits that cause unnecessary worry, tension, and fatigue. Performance movement, public speaking, and other activities will be used as ways for students to observe themselves in action. By understanding how they respond in activity, students will become adept at making choices, which will encourage their innate ability to work and perform with freedom and ease. Mr. and Ms. Hovenisian/Offered every year

119 PUBLIC SPEAKING/STUDIO

Students are required to make as many speeches as time permits, so that they may master the fundamentals of public speaking, including the most common situations: presentation of information and persuasive speaking. Staff/Offered every year

120 TECHNICAL THEATER/STUDIO, LECTURE

Introduction to theatrical production. Techniques and organization involved in providing the stage with scenery, lights, and properties. Introduces drafting, scaled ground plans, elements of design, and styles of production. Makeup, lighting, and set construction in applied lab/crew requirements. Ms. Weinrobe/Offered every semester

123 DESIGN FOR PERFORMANCE/STUDIO, TUTORIAL

Theory of design/function of visual artist in relationship to production, director, or choreographer. Collaboration in and development of performance art. Historical research in styles of ornament and production. Drawing, painting, and model building. Lab/crew assignments. Ms. Weinrobe/Offered every year

125 THEATRICAL DESIGN PROJECTS/STUDIO, TUTORIAL

Intermediate-level projects in design and presentation techniques for theater productions. Work in areas of scenery, costume, or lighting design. Prerequisite: TA 120. Ms. Weinrobe/Offered every semester

126 THE PHYSICAL THEATER/ENVIRONMENTAL STUDIO/STUDIO, TUTORIAL

Study of designed environment and structure as it relates to performance and the physical theater as well as contemporary installation projects. Study of public spaces, theater architecture, and site-specific work. Ms. Weinrobe/Offered every other year

127 ANALYSIS OF THEATER PRODUCTION/SEMINAR

Examination of live theater productions through written and verbal criticism. Critical elements of the concept of production explored through assigned readings and the development of a production proposal/concept. Attendance required at scheduled evening and/or weekend performances in the Worcester/Boston area. A lab fee will be collected to pay for tickets and bus rental. Ms. Weinrobe/Offered periodically

144 DRAMA OF THE WESTERN TRADITION/LECTURE, DISCUSSION

Surveys the traditional dramatic canon of the Western tradition. Reading will include plays by Sophocles, Plautus, anonymous writers of the medieval cycles and morality plays, Marlowe, Shakespeare, Webster, Jonson, Moliere, Congreve, Sheridan, and Wilde. Ms. Vaughan/Offered every year

153 MODERN DRAMA/LECTURE, DISCUSSION

Surveys the major dramatic writers from the 19th-century to the present. In studying the plays, a number of different points of view and reference will be considered including that of the playwright, the actor, the director, the historian, and the dramaturge. The student will be encouraged to arrive at a personal evaluation of the plays. Mr. DiIorio/Offered every year

171 STORYTELLING THROUGH VIDEO: DOCUMENTARY AND DRAMATIC PRODUCTION/STUDIO, LECTURE, DISCUSSION

Students in this class will produce one or two storytelling videos. Students may work either in the documentary or dramatic genre, and may work individually and collaboratively on each project. Class time will be used for viewing and discussing the students videos as they progress, and viewing and analyzing professionally made films and videos. All preproduction, production, and postproduction work will be done outside of class (including preparation of scripts or treatments, shooting, separate sound or archival recording, if necessary, and editing). In addition to production work, students will also keep a journal in which they record insights they derive from the filmmaking or film viewing related to this course. Many of the works screened in the course are regionally-produced, and some of the filmmakers will appear with their films. Mr. Simon/Offered once a year.

205 THE PLAY AND ITS STAGES/SEMINAR, WORKSHOP

A critical approach to the dramatic text based on historical and material conditions of performance. Considers the changing ways that meanings are made through styles and conventions of performance (including set, costume, mask, and vocal delivery) that are specific to historical and cultural moments. Playwrights considered may include Sophocles, Shakespeare, Racine, Molière, Chekhov, Ibsen, Brecht, Genet, and Beckett. There is scene work in class. Mr. Spingler/Offered periodically

206 LANGUAGES OF THEATER/SEMINAR, DISCUSSION

Studies the way meanings are made in theater through structure and sign. Examines the function of nonverbal communication in theater, especially mask, gesture, movement, and sound. Examines the influence of certain non-Western dramatic traditions such as Noh and Kabuki upon a number of Western experimental theaters. Plays may include Euripedes' *The Bacchae*,

Shakespeare's *The Tempest*, Cocteau's *Eiffel Tower Wedding Party* and *Orpheus*, Apollinaire's *The Breasts of Tiresias*, Jarry's *Ubu Roi*, Genet's *The Balcony*, and Pinter's *Homecoming*. Critical works read include Artaud's *The Theater and its Double*, Brook's *The Empty Space*, and Grotowski's *Towards a Poor Theater*. There will be scene work in class. May be taken as a companion course to TA 205. Mr. Spingler/Offered periodically

212 ACTOR AS THINKER/STUDIO, LECTURE, DISCUSSION

A conceptual approach to acting theory and its application. Student develops a greater understanding of script analysis, characterization, style, and the relationship of the actor to the audience. A basic course for all students who intend to continue in acting and directing, and a prerequisite for 213 Studio, and 219 Directing Seminar. Prerequisite: 112. Limited to 15 students. Mr. Munro/Offered every semester

213 STUDIO

A scene-study course applying the methods, theories, and approaches discussed in Actor as Thinker to working on stage, film, and video. Students are required to present several scenes of different periods and styles for discussion, critical written review, and further development by classmates and director. Content varies each time the course is taught. May be repeated for credit. Lab and crew hours are required. Prerequisite: 212. Mr. Munro, Mr. DiIorio/Offered every semester

214 SHAKESPEARE IN ACTION/STUDIO

This acting course concentrates on the major works (*Hamlet*, *Macbeth*, *Twelfth Night*, *Romeo and Juliet*, etc.), giving the actor an introduction to Shakespeare. The actor is encouraged to maintain the same approach and techniques used in other scene work, while adding the challenge of verse and heightened language. The focus of the class is to take a Shakespearean play and create the illusion of the first-time performance. Mr. DiIorio/Offered periodically

219 DIRECTING SEMINAR

Introduces the principles of directing for the stage through theory, practical application, and discussion. Students study problems of interpretation and concept; the role of the director as creative and interpretive artist; and relationship to designer, stage manager, and actors. Additional lab time is required. Prerequisites: 213 and instructor permission. Mr. Munro/Offered every year

225 ADVANCED THEATRICAL DESIGN PROJECTS

Advanced-level projects in design. May be repeated for credit. Prerequisite: instructor permission. Ms. Weinrobe

226 ADVANCED PRODUCTION PROJECTS

Introduces the business and practical execution of theater productions. Students learn techniques in organizing and managing different areas and departments. Requirements include participating in a supervisory position on a department show. Positions in outside theaters accepted for credit. Ms. Weinrobe

230 PLAYWRITING

Students learn basic techniques of stagecraft including dialogue and character development, as well as dramatic structure and the technical elements of a play. Students will write every week and complete assignments to be read in class. Mr. DiIorio/Offered every year

235 ADVANCED PLAYWRITING WORKSHOP

This workshop is designed to facilitate the work of advanced playwrights and actors. Writers will develop scenes every week, to be performed by the actors in the workshop. There will be an open discussion of the strengths and weaknesses of the piece from the perspectives of both performer and writer. The goal is to strengthen this relationship through constant work and critique. Every month, students will give a public performance of some of the scenes written for class. Course may be repeated for credit. Mr. DiIorio/Offered periodically

**256 SHAKESPEARE FROM PAGE TO
STAGE/LECTURE, WORKSHOP**

See English 256. Ms. Vaughan and
Mr. Dilorio/Offered periodically

Special Offerings

299 SEC. 1 DIRECTED READING

Staff

299 SEC. 2 DIRECTED RESEARCH

Staff

299 SEC. 3 DIRECTED WRITING

Staff

299 SEC. 4 FIELD PROJECT

Staff

299 SEC. 5 SPECIAL PROJECT

Staff

299 SEC. 6 SPECIAL TOPICS

Staff

299 SEC. 9 INTERNSHIP

Staff

With permission of the program director, the following courses offered by other departments may be taken for theater history and literature credit:

**CLASSICS 135 CLASSICAL GREEK TRAGEDY/
LECTURE, DISCUSSION**

See Ancient Civilizations.

**ENGLISH 120 INTRODUCTION TO SHAKESPEARE/
LECTURE**

See English. Ms. Vaughan/Offered every year

**ENGLISH 253 ADVANCED STUDIES IN
SHAKESPEARE/SEMINAR**

See English. Ms. Vaughan/Offered every year

**FRENCH 165 FRENCH DRAMATIC EXPRESSION:
PLAY PRODUCTION/LECTURE, DISCUSSION**

See Foreign Languages and Literatures. (In French.) Mr. Spingler/Offered every other year

**FRENCH 170 THE COMIC SPIRIT IN FRENCH
THEATER/LECTURE, DISCUSSION**

See Foreign Languages and Literatures. (In French.) Mr. Spingler/Offered every other year

Concentrations



ASIAN STUDIES

Participating Faculty

Jerry Breecher, Ph.D.: *parallel computing, software and hardware performance optimization*

Daeg Brenner, Ph.D.: *nuclear structure and astrophysics*

Rafael Brüschweiler, Ph.D.: *protein structure and dynamics, spin dynamics, molecular computing*

Arthur Chou, Ph.D.: *algorithms, complexity, bioinformatics*

Harvey Gould, Ph.D.: *computer simulation*

Fred Green, Ph.D.: *theory of computation, structural complexity*

Li Han, Ph.D.: *computer simulation, robotics, bioinformatics*

David Hibbett, Ph.D.: *molecular evolution, phylogenetic analysis*

Sharon Huo, Ph.D.: *biomolecular interactions and dynamics*

Todd Livdahl, Ph.D.: *population biology, biostatistics*

Don Nelson, Ph.D.: *protein-ligand interactions and dynamics*

Natalia Sternberg, Ph.D.: *applied mathematics, scientific computing*

Undergraduate Program

Asian Studies is an interdisciplinary concentration that can be taken as a complement to any major. The concentration requires six Asian-studies courses. Of these six courses, three may be selected from language courses; the other three must be selected from nonlanguage courses. The concentration further requires that two of the nonlanguage courses must be 200-level courses and one must include a significant research component. Students concentrating in Asian studies are encouraged, though not required, to take at least one year of Chinese or Japanese language, and to study one year abroad in Asia.

Through Clark's Study Abroad Office, students may apply to enroll at Kansai Gaidai University near Osaka, Japan, or at the CET program in Beijing, for language and other courses on Japan or China. Students may spend one year or one semester at Kansai Gaidai which requires at least one year of Japanese language prior to study in Japan. The CET program in Beijing is available for one semester each year in the spring term.

Enrollment in the CET program requires at least three semesters of Chinese language study prior to enrollment in China. Clark offers Chinese and Japanese language courses at the beginning and intermediate levels, and advanced Japanese as well. Through the Colleges of Worcester Consortium, students may also take advanced Chinese and other Asia-related courses at the College of the Holy Cross. Students who concentrate in Asian studies are also encouraged to take courses from the following list of related courses: GEOG 127 Political Economy of Third World Underdevelopment; GEOG 184 Landscapes of the Middle East; GOVT 117 Revolution and Political Violence; GOVT 261 Women and Militarization in a Comparative Politics Perspective; ID 125 Development Problems; and (depending on the topic) HIST 291 Seminar in Advanced Topics in International Relations. Although these courses do not carry Asian studies credit, they deal with Asia and therefore supplement the list of regular Asian studies courses that follows.

Courses

033 CONFUCIANISM, DAOISM, BUDDHISM/FIRST-YEAR SEMINAR

See History 033. Mr. Ropp/Offered every other year

080 INTRODUCTION TO MODERN ASIA/LECTURE

Compares native traditions, colonial experiences, and postcolonial developments in Asia since 1800, using historical and journalistic counts and literary selections. Mr. Ropp/Offered every other year

084 JAPANESE CIVILIZATION/LECTURE, DISCUSSION

See History 084. Staff/Offered periodically

CHINESE 101-102 BEGINNING CHINESE/LECTURE, DISCUSSION

See Chinese 101-102. Staff/Offered every year

CHINESE 103-104 INTERMEDIATE CHINESE/LECTURE, DISCUSSION

See Chinese 103-104. Staff/Offered every year

JAPANESE 101-102 ELEMENTARY JAPANESE/LECTURE, DISCUSSION

See 101-102. Staff/Offered every year

JAPANESE 103-104 INTERMEDIATE JAPANESE/LECTURE, DISCUSSION

See Japanese 103-104. Staff/Offered every year

107 MIRACLES OF ASIA: ECONOMIC GROWTH IN GLOBAL CONTEXTS/LECTURE, DISCUSSION

See Geography 107. Ms. Aoyama/Offered every year

160 THE ARTS OF ASIA/LECTURE, DISCUSSION

Mr. Bailey/Offered every other year

161 HISTORY OF INDIA/LECTURE, DISCUSSION

See History 161. Staff/Offered periodically

177 JAPANESE AND CHINESE ECONOMIES/LECTURE, DISCUSSION

See Economics 177. Mr. Hsu/Offered every year

180 JAPANESE CULTURE AND LITERATURE IN TRANSLATION

See Japanese 180. Ms. Valentine/Offered every year

181 CHINESE CIVILIZATION/LECTURE, DISCUSSION

See History 181. Mr. Ropp/Offered every other year

182 MODERN CHINA/LECTURE, DISCUSSION

See History 182. Mr. Ropp/Offered every other year

184 MODERN JAPAN/LECTURE, DISCUSSION

See History 184. Staff/Offered every other year

232 CONVERGING CULTURES IN THE AGE OF DISCOVERY/SEMINAR

See Art History 232. Mr. Bailey/Offered periodically

**233 CONFUCIANISM, DAOISM,
BUDDHISM/LECTURE, DISCUSSION**

See History 233. Mr. Ropp/Offered periodically

**254 STILL SPACES — EAST MEETS WEST:
CONTEMPLATIVE PRACTICE IN THE
CLASSROOM/SEMINAR**

See English 254. Ms. Gertz/Offered every other year

**266 HISTORY OF U.S.-EAST ASIAN TRADE
RELATIONS/ LECTURE, DISCUSSION (COPACE)**

Surveys the history of U.S.-East Asian trade and economic relations from the early 1800s to the present. Mr. Massey/Offered periodically

278 JAPAN SINCE 1945

See History 278. Staff/Offered periodically

279 LATE IMPERIAL CHINA/SEMINAR

See History 279. Mr. Massey and Mr. Ropp/Offered periodically

**281 THE PEOPLE'S REPUBLIC OF CHINA/LECTURE,
DISCUSSION**

See History 281. Mr. Ropp/Offered periodically

**282 CHINESE WOMEN IN LITERATURE AND
SOCIETY/LECTURE, DISCUSSION**

See History 282. Mr. Ropp/Offered every other year

286 THE VIETNAM WAR/LECTURE, DISCUSSION

See History 286. Staff/Offered periodically

288 SEMINAR IN CHINESE HISTORY

See History 288. Prerequisite: Asian Studies 080 or 181 or 182, or by permission. Mr Ropp/Offered periodically

**296 WOMEN MIRRORED IN EAST AND WEST/
SEMINAR**

See English 296. Ms. Gertz and Mr. Ropp/Offered periodically

COMPUTATIONAL SCIENCE

Program Faculty

Jerry Breecher, Ph.D.: *parallel computing, software and hardware performance optimization*

Daeg Brenner, Ph.D.: *nuclear structure and astrophysics*

Rafael Brüschweiler, Ph.D.: *protein structure and dynamics, spin dynamics, molecular computing*

Arthur Chou, Ph.D.: *algorithms, complexity, bioinformatics*

Harvey Gould, Ph.D.: *computer simulation*

Fred Green, Ph.D.: *theory of computation, structural complexity*

Li Han, Ph.D.: *computer simulation, robotics, bioinformatics*

David Hibbett, Ph.D.: *molecular evolution, phylogenetic analysis*

Sharon Huo, Ph.D.: *biomolecular interactions and dynamics*

Todd Livdahl, Ph.D.: *population biology, biostatistics*

Don Nelson, Ph.D.: *protein-ligand interactions and dynamics*

Natalia Sternberg, Ph.D.: *applied mathematics, scientific computing*

Undergraduate Program

The enormous progress in computational technology has generated a new methodology for learning and advancing the traditional sciences such as physics, chemistry, and biology.

Computational science combines the application of numerical methods, models, and algorithms in the context of solving problems that are intractable by traditional methods. It is distinct from computer science, which is the study of computers and computation, and it is different from theory and experiment, the traditional forms of science, in that it seeks to gain understanding principally by the analysis of mathematical models.

The goal of the computational science concentration is to provide an opportunity for students to learn about the interplay between science and computation. The concentration is especially suitable for undergraduate students

majoring in the sciences, mathematics, or computer science, but students in other majors will be considered on an individualized basis. Students completing the computational science concentration would be able to enter graduate programs in their majors or in newly created interdisciplinary graduate programs in computational science and would be well prepared to go into industry.

Concentration Requirements

Because of the sequential nature of many of the requirements and the relatively large number of major requirements for students in the concentration, students are encouraged to plan early and carefully. A student's choice of advanced courses must be approved by the concentration faculty. Typical course schedules for biology, chemistry, computer science, mathematics, and physics majors are given on the associated Web site, http://science.clarku.edu/compu_sci.html. The requirements vary depending on the student's major and interests, but all students are required to complete the following (or equivalent):

Introductory courses

- CSCI 101 (or the equivalent): Computer programming
- Two semesters of calculus (Mathematics 120,121 or 124,125)
- Two semesters of physics or chemistry (Physics 110,111, or 120, 121 or Chemistry 101, 102)
- Physics 127: Computer simulation laboratory

Advanced courses

Four additional courses are required from the following list of recommended courses with the approval of the program faculty.

- CSCI 102: Computer Programming II
- CSCI 160: Data Structures and Algorithms
- CSCI 210: Artificial Intelligence
- BIOL 101,102: Intro Biology
- BIOL 254: Molecular Evolution and Systematics
- BIOL 280: Biostatistics and Computer Applications

- CHEM 102: Intro Chemistry
- CHEM 242: Nuclear Chemistry
- CHEM 264: Biophysical Chemistry
- CHEM 270: Quantum Chemistry
- CHEM 275: Protein Chemistry
- MATH 114: Discrete Mathematics
- MATH 212: Numerical Analysis
- MATH 217: Probability and Statistics

Research Project

A minimum of a one-semester (or during one summer) research project with a member of the program faculty.

ETHICS AND PUBLIC POLICY

Participating Faculty

Gary E. Overvold, Ph.D., *program director (on leave 2003-04): interdisciplinary studies, cultural history, professional ethics*

Judith W. DeCew, Ph.D.: *acting director, ethics, philosophy of law, social and political philosophy*

Marguerete Arndt, Ph.D.: *health policy*

John Blydenburgh, Ph.D.: *game theory, policy analysis, public-opinion research*

Robert Bradbury, Ph.D.: *health policy*

Halina Brown, Ph.D.: *risk analysis and management, public-health policy*

Brian Cook, Ph.D.: *public policy, environmental policy, environmental law*

Patrick G. Derr, Ph.D.: *philosophy of science, biomedical ethics, ethical issues in hazards management*

Eric Gordy, Ph.D.: *political sociology*

Susan Hanson, Ph.D.: *transportation policy*

Douglas Johnson, Ph.D.: *land-management policy*

Roger Kasperson, Ph.D.: *environmental policy, risk analysis and management*

Deborah M. Merrill, Ph.D.: *medical sociology, family, aging*

Mark C. Miller, J.D., Ph.D.: *American political institutions, constitutional law*

Attiatt Ott, Ph.D.: *health economics, health policy*

Edward Ottensmeyer, Ph.D.: *management, business ethics*

Michael Pakaluk, Ph.D.: *philosophy of love and friendship*

Frank Puffer, Ph.D.: *health economics, health policy*

Robert Ross, Ph.D.: *social planning and social policy*

Walter E. Wright, Ph.D.: *ethics*

Undergraduate Program

The interdisciplinary ethics and public policy concentration can be taken in conjunction with any major at Clark. This concentration is particularly recommended for students who intend to pursue professional or career interests in policy-related fields such as law, government, public administration, or health care.

Concentration Requirements

The requirements for a concentration in ethics and public policy are designed to familiarize the student with the basic concepts and methods of both ethical analysis and policy analysis; to introduce the theoretical and methodological problems of both ethical analysis and policy analysis; and to ensure that the student engages in sustained analysis of particular ethical and public-policy issues at both an introductory and an advanced level.

At a minimum, the concentration in ethics and public policy requires six courses, distributed in the following manner:

1. Two required courses in ethics

At least one introductory course focused on the basic concepts and methods of ethical analysis. For example:

PHIL 105 Personal Values

PHIL 132 Social and Political Ethics

At least one advanced course focused on theoretical and methodological problems of ethical analysis. For example:

PHIL 220 History of Ethics

PHIL 221 Social and Political Philosophy

PHIL 228 Contemporary Moral Theory

GOVT 286 Advanced Topics in Contemporary Political Feminist Theories

2. Two required courses in public-policy analysis

At least one introductory course focused on the basic concepts and methods of policy analysis. For example:

GOVT 070 Introduction to Comparative Politics

GOVT 107 Research Methods

ECON 126 Public Policy Toward Business

GOVT 154 The Politics of Public Policy

GOVT 155 Roots of Political Thought

EN 175 Science, Decision Making and Uncertainty

At least one advanced course focused on theoretical and methodological problems of policy analysis. For example:

GOVT 202 Applications of Game Theory

EN 212 Environmental Policy and

Management

GOVT 213 Policy Analysis

ECON 215 Government Finance: Budget Policy in a Comparative Setting

EN 226 Environmental Hazards

SOC 243 Political Sociology

SOC 246 Social Planning and Social Policy

EN 250 Technology Assessment

GOVT 253 Judicial Politics

GOVT 255 U.S. Congress

EN 261 Decision Analysis for Environmental Management

EN 265 Tools for Quantitative Policy Analysis

GOVT 281 Politics of Public Management

3. Two required courses on applications and problems

At least one introductory course focused on particular ethical and public policy issues. For example:

GEOG 105 The Keeping of Animals:

Patterns of Use and Abuse

ID 108 World Population

ID 125 Development Problems

PHIL 130 Medical Ethics

PHIL 131 Environmental Ethics

PHIL 133 Business Ethics

GOVT 147 Normative World Orders
 SOC 150 Class, Status and Power
 EDUC 155 Education and Social Policy
 GOVT 157 The Politics of Environmental
 Issues
 SOC 180 Aging and Society
 EN 182 People, Politics and Pollution

At least one advanced course devoted to
 the intensive analysis of particular ethical
 and public-policy issues. For example:

EN 210 Environment and Society
 ECON 216 Tax Systems and Policies
 GOVT 221 Urban Policy and Internships
 ECON 225 Health Policy
 EN 226 Environmental Hazards: Theory,
 Models & Applications
 ID 232 Population, Environment, and
 Development
 SOC 241 Sociology of Medicine
 GOVT 250 National Security Policy
 Making in the United States
 EN 251 Limits of Earth
 GEOG 254 Urban Transportation:
 Problems and Prospects
 GEOG 258 Utopian Vision, Urban Reality
 MGMT 262 Business Ethics
 SOC 265 Social Movements: The Quest
 for Justice
 PHIL 270 Philosophy of Law
 EPP 273 Advanced Issues in Medical
 Ethics
 EN 282 Management of Environ Pollutants

Directed Readings, Individual Research

Students who are motivated to undertake significant independent research should consult the individual faculty member with whom they wish to work regarding opportunities for Directed Research or Directed Readings.

Internships

Participating faculty sponsor a variety of undergraduate internship experiences, often with policy-making professionals or agencies with whom they have a consulting or research relationship. Students interested in these opportunities should inquire through the internship office.

Courses

All courses that count toward the concentration will be cross-referenced under the EPP designation. For more details about a specific course, see the catalog listing under the participating department. No more than two of the courses can also be counted for the student's major or minor requirements, or for another concentration.

HOLOCAUST AND GENOCIDE STUDIES PROGRAM

Core Faculty

Deboráh Dwork, Ph.D., *Rose Professor of Holocaust Studies and Modern Jewish History and Culture: Modern European history, history of the Holocaust*

Everett Fox, Ph.D., *the Allen M. Glick chair in Judaic and Biblical Studies: Hebrew Bible, Midrash, Jewish ritual and folklore, classical Jewish thought*

Robert Gellately, Ph.D.: *Strassler Family Chair for the Study of Holocaust History: modern German history, modern Central European history, history of the Holocaust*

Walter Schatzberg, Ph.D.: *Age of Goethe, Weimar culture, German expressionism in literature and the arts, German cinema, relations between literature and science*

Valerie Sperling, Ph.D.: *Post-Soviet and East European politics, comparative politics, social movements and collective action, women's studies*

Shelly Tenenbaum, Ph.D., *program director: sociology of American Jewry, race and ethnicity, gender*

Participating Faculty

Paul F. Burke, Jr., Ph.D.: *Greek and Latin language and literature, classical mythology, classical art and archaeology, ancient history*

Gerald R. Castonguay, Ph.D.: *musicology, medieval through 19th-century music and cultural history*

Eric D.Gordy, Ph.D.: *sociological theory, sociology of culture, media and communication, political and historical sociology, Balkan societies*

Hartmut Kaiser, Ph.D.: *German language and literature, German romanticism, the fairy tale, relations between music and literature*

Dorothy Kaufmann, Ph.D.: *French literature, feminism and women writers, autobiography, French and Francophone cultural studies*

Paul Lucas, Ph.D.: *England and France before 1800; European intellectual history, 1650-1945*

Undergraduate Program

The Holocaust and acts of genocide are studied to enhance our understanding of the society from which we came, the society in which we live, and the society to which we currently are giving shape. By studying the Holocaust and genocide, we learn about ethnicity, geography, and genocide; about collusion and resistance; about the hot violence of mass murder and the cold violence of the modern, bureaucratic machinery of death; and about suffering and adaptation to suffering. We learn how societies disintegrated, step by step, and how ordinary men, women, and children both participated in and were affected by this disintegration. We learn, in short, a tremendous amount about what we need to know now to help us make the world a better place, wherever we might be.

The undergraduate concentration in Holocaust and genocide studies provides students with solid grounding in the history of the Holocaust and other genocides. Students also take a series of courses in a variety of disciplines to ensure a critical, analytical, and sophisticated understanding of the various facets of these atrocities. The undergraduate program of study emphasizes history while encompassing sociology, government, literature, film, and music.

Concentration Requirements

The Holocaust and genocide studies concentration may be pursued in conjunction with any major. Students are required to take seven courses that include:

SOC 130 Genocide

HIST 175 The History of the Holocaust:
Part 1 or HIST 284 The Holocaust and
Its Aftermath

GOVT 214 Mass Murder and Genocide
Under Communism

Two courses from section A, one of which must be in Jewish Studies

One course from section B

A capstone course

The two courses from section A and the one course from section B must be in at least two different disciplines. At least two of the total seven courses must be at the 200 level. The program faculty members will serve as advisers to students, providing guidance in selecting courses and developing a capstone experience.

Section A

Two out of this list are required, one of which must be in Jewish studies.

JS 130 Suffering and Evil in Jewish
Tradition

HIST 173 History of Racial Thought

JS 174 The Jewish Experience

GERM 188 The Culture of the Weimar
Republic in Literature, Film, and the Arts

JS 212 Eastern European Jewish History
and Culture Between the Two World
Wars

HIST 253 Europe in the Age of Extremes

HIST 259 Germany to 1933

JS 262 Jews and Christians in the Ancient
World

JS 276 Modern Jewish History and
Thought

Section B

One of the following courses is required

GERM 150 New German Cinema

HIST 176 The Holocaust in Historical
Perspective

GERM 192 Richard Wagner, the Jews and
the Nazis

SCRN 205 Holocaust on Film

CMLT 209 Literary Responses to the
Holocaust

FREN 225 Literature and Film of German-
Occupied France

GOVT 230 The Armenian Genocide

GOVT 240 Human Rights and International Politics
 SOC 242 Human Rights and Transitional Justice
 HIST 260 Rescue and Resistance
 JS 261 Jewish Children in Nazi Europe
 HIST 262 Science, Medicine, Race in Modern Europe
 HIST 263 Nazi Terror in Germany and Europe
 HIST 264 Intimacy and Dictatorship
 HIST 268 Holocaust Issues and Controversies
 HIST 270 Homefronts in World War II
 HIST 273 Life Under Occupation
 HIST 274 The Fate of the Shtetl During the Holocaust

Capstone Courses

The capstone requirement may be fulfilled through a directed research project or a seminar. Examples of seminars that fulfill the capstone requirement are HIST 260 Rescue and Resistance, JS 261 Jewish Children in Nazi Europe, HIST 264 Intimacy and Dictatorship, HIST 270 Homefronts in World War II, and HIST 273 Life Under Occupation.

JEWISH STUDIES

Program Faculty

Debórah Dwork, Ph.D.: *Modern European history, history of the Holocaust*

Everett Fox, Ph.D., *program director: Hebrew Bible, Midrash, Jewish ritual and folklore, classical Jewish thought*

Shelly Tenenbaum, Ph.D.: *sociology of American Jewry, race/ethnicity, women in Jewish culture*

Adjunct Faculty

Paul F. Burke, Jr., Ph.D.: *Greek and Latin language and literature, classical mythology, classical art and archaeology, ancient history*

George M. Lane, M.A.: *U.S. foreign policy, arms control, Middle East politics, U.S.-European relations*

Visiting Faculty

Tzilla Barone, B.A.: *Hebrew language and literature*

Undergraduate Program

Jewish studies at Clark are designed to introduce the student to the major historical and religious trends in Jewish civilization since its inception in antiquity. The courses reflect the broad range of developments both encountered and fostered by the Jewish people: their contact with other world civilizations, their classical literature, their social and religious institutions, and their interaction with the modern world. In these courses, Jews and Judaism are studied both in their own internal context and as paradigms for wider trends in history and religion.

Concentration Requirements

All students must take JS 174 The Jewish Experience, a survey of Jewish history and thought. In addition to JS 174, students must take six courses of which at least two must be in the Classical area and at least two in the Modern area. One of the six courses must be an integrating capstone project (internship, independent study, or advanced seminar with the approval of the program director). Two courses in Hebrew language may also count toward concentration. It should also be noted that courses in other departments cited below are cross-referenced.

CLASSICAL

JS 117 Introduction to the Hebrew Bible I: Narrative and Law

JS 118 Introduction to the Hebrew Bible II: Prophecy and Poetry

JS 121 Laws and Legends, Maxims and Mystical Tales

JS 123 The Midrashic Tradition

JS 130 Suffering and Evil in Jewish Tradition

JS 150 Jerusalem in History and Imagination

JS 262 Jews and Christians in the Ancient World

JS 267 The Religious Experience in the Ancient World

MODERN

JS 203 American Jewish Life

JS 204 History of the Holocaust

JS 210 Arab-Israeli Conflict

JS 245 U.S. Foreign Policy-Middle East

JS 258 Women in Jewish Culture (also Classical)

JS 276 Modern Jewish History and Thought

JS 277 History of Zionism and Israel

Courses

Hebrew Language and Literature Courses

101-102 ELEMENTARY HEBREW/LECTURE, DISCUSSION

See Hebrew 101-102. Ms. Barone/Offered every year

103 INTERMEDIATE HEBREW/LECTURE, DISCUSSION

See Hebrew 103. Ms. Barone/Offered every year

104 INTERMEDIATE/ADVANCE HEBREW/LECTURE, DISCUSSION

See Hebrew 104. Ms. Barone/Offered every year

105 ADVANCED HEBREW/LECTURE, DISCUSSION

See Hebrew 105. Ms. Barone/Offered every year

299 SEC. 6 SPECIAL TOPICS IN HEBREW

See Hebrew 299.6. Ms. Barone/Offered every year

Jewish Studies Courses

117 INTRODUCTION TO THE HEBREW BIBLE I: NARRATIVE AND LAW/LECTURE, DISCUSSION

A close reading (in English) of the first half of the Hebrew Bible, Genesis through Kings II. Issues to be considered include: the rise of Israel against the background of the Ancient Near East, myth and history in the ancient world, biblical storytelling as an artistic and ideological form, and the world view behind biblical laws and rituals. Also discussed is the process by which the Bible took shape, in relation to ancient Israel's self-understanding. The tools of recent research in comparative reli-

gion, anthropology, archaeology, and literature are utilized. Emphasizes the contribution of this literature to Western thought. Mr. Fox/Offered every year

118 INTRODUCTION TO THE HEBREW BIBLE II: PROPHECY AND POETRY/LECTURE, DISCUSSION

A close reading (in English) of the poetic portions of the Hebrew Bible, from Isaiah through the Writings. The prophetic revolution in Israel is evaluated: its roots, its impact on its own society, as well as on later social and cultural criticism in the West. The artistry of biblical poetry is analyzed, along with the thematic of piety, despair, resignation, and eroticism that are found in such books as the Psalms and the Song of Songs. Finally, books of a more philosophical bent (Ecclesiastes, Job), which question the earlier assumptions of biblical faith, are read. As in Jewish Studies 117, emphasis is placed in the influence of the Bible on later thinking in the West. Mr. Fox/Offered every year

121 LAWS AND LEGENDS, MAXIMS AND MYSTICAL TALES/LECTURE, DISCUSSION

Introduces (in English) major texts of post-Biblical Judaism. Beginning with the Roman period, the texts cover such diverse areas as folklore, ethics, legal rules, and mysticism. The sources involve ancient answers to questions of everyday living, physical and spiritual survival, and celebration; we also trace the reformulation of such questions down to the eve of the modern period. Stresses how the texts work, centering on the role of commentary as a classic form of Jewish discourse and on an active style of group learning. Mr. Fox/Offered every other year

123 THE MIDRASHIC TRADITION/LECTURE, DISCUSSION

An English-language study of Midrashic literature, the primary Jewish literary expression after the Bible. Written down mainly during the Roman period, the texts comprise independent legends about supernatural beings; writings about biblical characters (filling in gaps in the biblical stories); traditions about the lives of the ancient rabbis; and wide-ranging statements

about worldly wisdom, ethical values, and political reality. Sources are ready with an eye toward what they reveal about ancient Jewish society and in the light of recent work in folklore studies. A final unit considers later forms of Midrash, such as Hasidic and contemporary variations. Mr. Fox/Offered every other year

130 SUFFERING AND EVIL IN JEWISH TRADITION/LECTURE, DISCUSSION

A central problem in Western religious thought is theodicy: how to explain the existence of suffering and evil in a world ruled by a supposedly benevolent God. Examines a variety of Jewish sources on the problem, which propose a wide variety of answers. Central are the biblical book of Job and its interpretations through the centuries; at the other end of history, responses to the Holocaust are considered. Mr. Fox/Offered every other year

150 JERUSALEM IN HISTORY AND IMAGINATION/LECTURE, DISCUSSION

Travels through the complex history of Jerusalem, a city holy to Jews, Christians, and Muslims, from the Bronze Age to the present. The governing powers and cultures centered in the city will be studied, from Israelites to Persians, Greeks, Romans, Byzantines, Umayyad Arabs, Crusaders, Ottoman Turks, European colonials, and present-day Israelis and Palestinians. Their political and religious visions of the city, and how these have played out in conquest, governance, and architecture, will be discussed. Also considered will be the universal concept of sacred space, as demonstrated by Jerusalem. We will move from the Jerusalem of daily reality—including that of today—to the Jerusalem of the mind, suffused with the deeds of Herod and Isaiah, Herod and Jesus, Mohammed and Salâdin; a city envisioned by millions as the site of future redemption for humanity. Mr. Fox/Offered periodically

174 THE JEWISH EXPERIENCE/LECTURE, DISCUSSION

A survey of the history of the Jewish community and the development of Judaism from the era of Alexander the Great (c. 325 B.C.E.) to

the present. Examines the major political, religious, social, and economic trends of each period as they affected the evolving Jewish community and the development of Judaism. Emphasizes elements of change and continuity as well as the interaction of the Jewish community with the larger culture/community. Mr. Fox/Offered every year

203 AMERICAN JEWISH LIFE

See Sociology 203. Ms. Tenenbaum/Offered every other year

204 HISTORY OF THE HOLOCAUST TO 1933

See History 175. Ms. Dwork/Offered every year

212 EASTERN EUROPEAN JEWISH HISTORY AND CULTURE BETWEEN THE TWO WORLD WARS

See Holocaust Studies 212. Staff/Offered every year

245 U.S. FOREIGN POLICY-MIDDLE EAST

See Government 245. Mr. Lane/Offered every year

258 WOMEN IN JEWISH CULTURE

See Sociology 258. Ms. Tenenbaum/Offered every other year

262 JEWS AND CHRISTIANS IN THE ANCIENT WORLD

See Classics 262. Mr. Burke/Offered every other year

267 THE RELIGIOUS EXPERIENCE IN THE ANCIENT WORLD

See Ancient Civilizations 267. Mr. Burke/Offered every other year

276 MODERN JEWISH HISTORY AND THOUGHT

See History 276. Staff/Offered every other year

277 HISTORY OF ZIONISM AND ISRAEL

Examines the rise and development of the Zionist idea, Zionist parties, and politics and diplomacy in relation to Jewish history and international affairs from 1880 until 1948. The second part of the course analyzes Israel's domestic and foreign policies from 1948 to the present. Special attention is given to social and political trends in Israeli society. Staff/Offered periodically

LAW AND SOCIETY

Core Faculty Advisers

Mark C. Miller, J.D., Ph.D., *program director: judicial behavior, lawyers and American politics, U.S. constitutional law, comparative courts and law*

Judith W. DeCew, Ph.D.: *philosophy of law, social and political philosophy, privacy and the law*

Patricia M. Ewick, Ph.D.: *sociology of law, deviance and social control*

Undergraduate Program

The interdisciplinary Law and Society concentration explores questions about the impact and effects of law, legal institutions, and legal actors on society from a variety of perspectives. It also explores the identification and analysis of legal arguments in a variety of contexts. Some of the courses also help the students develop their oral advocacy skills. The concentration can be taken in conjunction with any major at Clark. Generally, 200-level courses are not appropriate for first-year students.

Concentration Requirements

1. Students must take a minimum of six courses to fulfill the concentration.
2. The six courses must come from at least three different departments.
3. At least two of the courses must be at the 200 level.
4. One of the six courses must be a gateway course, which should be taken as early as possible in the student's academic program:
GOVT 050 Introduction to American Government
5. One of the six courses must be a capstone experience (a seminar, an internship, or a directed research project):
PHIL 270 Seminar: Philosophy of Law
GOVT 291 Seminar: Lawyers and American Politics
GOVT 293 Seminar: Constitutional Democracy
Legal Internships in a variety of academic departments
Directed research or special projects in a variety of academic departments

6. No more than two of the courses can also be counted for the student's major or minor requirements, or for another concentration.

Listing of Courses

All courses in the concentration are listed under the LAS designation. For more details about a specific course, see the catalog listing under the participating home department.

Courses

Gateway course:

GOVT 050 Introduction to American Government

General courses:

IDND 038 Trial Advocacy
IDND 039 Advanced Trial Advocacy
HIST 070 Our European Roots
PHIL 107 Logic and Legal Analysis
PHIL 108 Privacy in Law and Ethics
PHIL 132 Social and Political Ethics
HIST 140 England to 1688
GOVT 146 UN and International Law
ECON 157 Economics of Natural Resources
MGMT 178 Business Law
ENG 196/COMM 196 Oral Advocacy
HIST 201 Era of the American Revolution
HIST 202 Early American Republic
GOVT 203 Justice and Gender
HIST 214 American Civil War
HIST 217 Reconstruction: America after the Civil War
PHIL 221 Social and Political Philosophy
HIST 223 Civil Rights Movement
SOC 244 Human Rights and Transitional Justice
GOVT 253 U.S. Judicial Politics
ECON 257 (LAS 256) Environmental and Natural Resource Economics
GOVT 257 Comparative Courts and Law
ENG 257/COMM 257 (LAS 258) Language at Issue
SOC 262 Law and Society
SOC 263 Deviance and Social Control
GOVT 272/HIST 239 Con Law: Civil Liberties
GOVT 273/HIST 240 Con Law: Government Powers

GOVT 274 The Supreme Court and American Society
GOVT 276 Environmental Law
EN 282 Management of Environmental Pollutants

Capstone courses:

PHIL 270 Philosophy of Law
GOVT 291 Lawyers and American Politics
GOVT 293 Constitutional Democracy

Directed Readings, Individual Research

Students who are motivated to undertake significant independent research should consult the individual faculty member with whom they wish to work regarding opportunities for directed research or special projects.

Internships

Participating faculty sponsor a variety of undergraduate legal and law-related internship experiences. Students interested in these opportunities should inquire with the internship coordinator in the Office of Career Services.

PEACE STUDIES

Program Faculty

Joseph H. deRivera, Ph.D. *program director: emotions, social psychology and the development of a culture of peace*

Patrick G. Derr, Ph.D.: *environmental and medical ethics, hazards management, philosophy of science*

Deborah Dwork, Ph.D.: *Holocaust studies, history of genocide*

William Fisher, Ph.D.: *social movements; the politics of development; transnational advocacy networks; state-ethnic conflicts*

Eric Gordy, Ph.D.: *cosmopolitanism and cultural conflict within societies*

Janette Greenwood, Ph.D.: *American social history*

Laura Hammond, Ph.D.: *humanitarian assistance in conflict, postconflict peace building, refugees and forced migration, famine and food security*

George Lane, M.A.: *U.S. foreign policy, arms control, Middle East history and politics*

Douglas J. Little, Ph.D.: *U.S. diplomatic history, America since 1900, modern Latin America, Middle East*

Dianne Rocheleau, Ph.D.: *gender, class, race and ethnicity in conflicts over the environment and development; social movements to recreate the commons on local, regional, and global scales*

Robert J. Ross, Ph.D.: *urban political economy, political sociology, social movements*

Valerie Sperling, Ph.D.: *women's movements, nonviolent collective action, state-society relations*

Kristen Williams, Ph.D.: *international relations, arms control and international security, nonviolent responses to nationalist and ethnic conflicts*

Walter E. Wright, Ph.D.: *ethics, philosophy of religion*

Program and Concentration

The peace-studies program is concerned with analyzing alternative ways that may be used to transform individual behavior, national policy, and human institutions in order to promote peace and justice in the world. The program promotes discussion and study on issues of conflict and its management, within the lives of individuals, societies, and the world at large. It sponsors research on meditation, mediation, negotiation, and ways to reduce violence, build diverse communities, and use nonviolent action to defend human rights and promote justice.

Undergraduates may concentrate in peace studies to complement any major. Students may also design a major in peace studies via the University's self-designed major. The concentration draws together the knowledge of several disciplines in the context of the search for peace, while enhancing students' critical thinking skills and awareness of the connections between local and global issues.

Departments and programs represented in peace studies include economics, government, history, international development, philosophy, psychology, and sociology.

Course work, research, and internships enable students to apply their theoretical understanding of the issues of peace to practical situations. The concentrator needs to have an active understanding of the relationship between the three spheres of peace: personal, societal, and global. These are interlocked, each influencing the others in cyclical patterns. Conflicts often involve links between the hearts of individuals, the structures of societies, and global competition and cooperation. Hence, the concentrator should be engaged in understanding how personal development and societal and global structure can transform conflicts. Students with a concentration in peace studies are prepared to enter careers and graduate study in such fields as public policy, international development, labor relations, environment and ecology, and international relations. They are prepared to take an active role in shaping constructive policies in the public sector and civil society.

The Peace Studies Office provides information on internships, jobs, and careers; a library; and a computer link to international conferences and bulletin boards.

Requirements

Students who concentrate in peace studies take PSTD 101 Introduction to Peace Studies, and at least one course from each of three clusters of courses dealing with issues of negotiation and political influence, nonviolent action, and strength and conflict. Finally, students select an elective from any of the three clusters and take either an internship, or a directed readings, research, or seminar that involves at least one of the skills of peacemaking and enables the student to examine personal transformation. Thus, six courses are required for the concentration. (At least two of these should be at the 200 level; two may be from the student's major.)

Courses

The following is a list of Clark's peace studies offerings. Students may petition the peace-studies committee to receive concentration

credit for courses other than those listed below, including courses that are available through the consortium. More information may be obtained from the Peace Studies Office, 201 Jonas Clark. (508) 793-7663.

101 AN INTRODUCTION TO PEACE STUDIES AND THE PSYCHOLOGY OF PEACE

Can we manage the conflict in our personal life, our society, our world, so it results in development and justice rather than oppression and destruction? We consider four paths towards peace: Strength, negotiation, justice through nonviolent and political action, and personal transformation. Students are asked to develop their own stance towards achieving peace, to act on the basis of that stance, and to report what they discover. Mr. deRivera/
Offered every year

Nonviolent Action Courses

131 LOCAL ACTION, GLOBAL CHANGE

See International Development and Social Change 131.

177 TRANSITIONS TO DEMOCRACY

See Government and International Relations 177.

233 THE CIVIL RIGHTS MOVEMENT

See History 223.

251 SOCIAL MOVEMENTS AND INTEREST GROUPS

See Government and International Relations 251.

253 SOCIAL MOVEMENTS, GLOBALIZATION, AND THE STATE

See International Development and Social Change 253.

265 SOCIAL MOVEMENTS

See Sociology 265.

Negotiation and Political Influence Courses

266 PRINCIPLES OF NEGOTIATION AND MEDIATION: AN OVERVIEW OF CONFLICT RESOLUTION APPROACHES

See International Development and Social Change 266.

366 PRINCIPLES OF INTER-GROUP NEGOTIATION

See International Development and Social Change 366.

154 THE POLITICS OF PUBLIC POLICY IN THE U.S.

See Government and International Relations 154.

205 CAMPAIGNS AND ELECTIONS

See Government and International Relations 205.

243 POLITICAL SOCIOLOGY

See Sociology 243

251 SOCIAL MOVEMENTS AND INTEREST GROUPS

See Government and International Relations 251.

255 THE POLITICS OF CONGRESS

See Government and International Relations 255.

Strength and Conflict

117 REVOLUTION AND POLITICAL VIOLENCE

See Government and International Relations 117.

129 GENOCIDE

See Sociology 130.

210 PALESTINE, ISRAEL AND THE ARAB CONFLICT

See Government and International Relations 210.

230 THE ARMENIAN GENOCIDE

See History 230.

245 U.S. FOREIGN POLICY-MIDDLE EAST

See Government and International Relations 245.

250 NATIONAL SECURITY

See Government and International Relations 250.

259 WAR, REVOLUTION, AND SOCIETY IN MODERN GERMANY

See History 259.

260 RESCUE AND RESISTANCE DURING THE HOLOCAUST

See History 260.

261 WOMEN AND MILITARISM

See Government and International Relations 261.

289 ADVANCED TOPICS IN INTERNATIONAL RELATIONS

See History 287.

Internships, Directed Readings, Research and Capstone Courses

PSTD 246 PSYCHOLOGY OF PEACEMAKING

PSTD 290 SPECIAL TOPICS IN PEACE STUDIES

PSTD 298 DIRECTED READINGS IN PEACE STUDIES

PSTD 299 PEACE STUDIES INTERNSHIP

RACE AND ETHNIC RELATIONS

Principal Advisers

Beverly Grier, Ph.D., *coordinator: African politics, African-American politics, child labor, land and politics*

Janette Greenwood, Ph.D.: *American social and African-American history, history of the South*

Shelly Tenenbaum, Ph.D.: *Jewish studies, race/ethnicity, social stratification*

Participating Faculty

Maria Acosta Cruz, Ph.D.: *Spanish-American literature, Baroque literature, postmodern literature, comparative literature, contemporary literary theory*

Parminder Bhachu, Ph.D.: *urban anthropology, diaspora cultures, immigration and migrant identities, ethnicities, nationalism, gender*

Paul F. Burke, Ph.D.: *ancient history*

Martyn J. Bowden, Ph.D.: *cultural humanistic and historical/urban/social geography*

Carol C. D'Lugo, Ph.D.: *Spanish and Spanish-American Literature, literary theory*

Deboráh Dwork, Ph.D.: *modern European history, history of the Holocaust*

Cynthia H. Enloe, Ph.D.: *women and politics, militarization, Asian politics, British politics, ethnic and racial politics*

William Ferguson, Ph.D.: *Spanish Golden-Age literature, 20th-century Hispanic literature*

Everett Fox, Ph.D.: *Hebrew Bible, Midrash, Jewish ritual and folklore, classical Jewish thought*

Susan Hanson, Ph.D.: *urban/social geography transportation, research methods, geography and gender*

Fern L. Johnson, Ph.D.: *sociolinguistics, feminist linguistics, communication*

Dorothy Kaufmann, Ph.D.: *French literature, feminism and women writers, autobiography, French and francophone cultural studies*

Constance M. Montross, Ph.D.: *Spanish-American literature*

Winston Napier, Ph.D.: *African-American literature, critical theory*

Robert J.S. Ross, Ph.D.: *urban studies, political sociology, political economy, social policy*

Undergraduate Program

Race and ethnic relations is an interdisciplinary concentration that enables students to examine relations within and between racial and ethnic groups primarily in the United States. The concentration brings together a wide range of courses in the humanities and social sciences that allow students to compare experiences across racial and ethnic groups. The concentration also allows students to compare the U.S. experience with that of other racially and ethnically diverse countries in Europe, the Middle East, Africa, and Asia, past and present.

Requirements

Students fulfilling the race and ethnic relations concentration are required to take a minimum of six courses. Five of the six courses must be U.S.-based courses; one must focus on a country or region outside the United States.

1. One course must be HIST 016 Race and Ethnicity in American History, a humanities course. This course serves as the introductory course for the concentration.
2. Two additional courses in the humanities (classics, English, foreign languages and literature, history). One of these courses must be a literature course.
3. Three courses in the social sciences (cultural and global processes, geography, government, sociology).

4. A minimum of three courses must be at the 200 level. One course must be an advanced seminar approved by the student's adviser. The advanced seminar serves as the capstone experience.

5. One course whose focus is a country or region other than the United States.

Courses

Introductory Course

016 RACE AND ETHNICITY IN AMERICAN HISTORY

See History 016. Ms. Greenwood/Offered every year

Humanities Courses (Choose a minimum of two courses)

021 VOICES FROM SLAVERY

See History 021. Ms. Greenwood/Offered periodically

113 URBAN LANDSCAPES: THE CITY IN AMERICAN HISTORY FROM COLONIAL TO MODERN TIMES

See History 113. Ms. Richter/Offered every year

117 FIELDWORK IN THE HISPANIC COMMUNITY

See Spanish 117. Ms. Montross/Offered every semester

127 CROSSING BOUNDARIES

See Comparative Literature 125. Ms. Kaufmann/Offered periodically

182 AFRICAN-AMERICAN LITERATURE I

See English 182. Mr. Napier/Offered every year

183 AFRICAN-AMERICAN LITERATURE II

See English 183. Mr. Napier/Offered every year

214 THE AMERICAN CIVIL WAR

See History 214. Mr. McCoy/Offered every other year

215 LANGUAGE AND CULTURE IN THE UNITED STATES

See English 215. Ms. Johnson/Offered every year

217 RECONSTRUCTION: AMERICA AFTER THE CIVIL WAR, 1865-1877/SEMINAR

See History 217. Ms. Greenwood/Offered periodically

220 COMMUNITY HISTORY/RESEARCH SEMINAR

See History 220. Ms. Greenwood/Offered periodically

221 FROM SLAVERY TO FREEDOM

See History 221. Ms. Greenwood/Offered every other year

222 HISTORY OF THE SOUTH

See History 222. Ms. Greenwood/Offered every other year

223 HISTORY OF THE CIVIL RIGHTS MOVEMENT

See History 223. Ms. Greenwood/Offered every other year

277 RACE AND GENDER: AFRICAN-AMERICAN LITERARY THEORY

See English 187. Mr. Napier/Offered every year

291 HARLEM RENAISSANCE SEMINAR

See English 291. Mr. Napier/Offered periodically

Social Science Courses (Choose a minimum of three courses)**125 CITIES AND SUBURBS**

See Sociology 125. Mr. Ross/Offered every year

142 CITIES AND CULTURE: THE AMERICAN CITY

See Geography 142. Mr. Bowden/Offered every year

170 DIVIDED CITIES, CONNECTED LIVES

See Geography 170. Ms. Hanson/Offered every other year

200 CLASS, STATUS AND POWER

See Sociology 200. Mr. London, Mr. Ross, Ms. Tenenbaum/Offered every year

203 AMERICAN JEWISH LIFE

See Sociology 203. Ms. Tenenbaum/Offered every other year

224 AFRICAN-AMERICAN POLITICS

See Government and International Relations 224. Ms. Grier/Offered every year

225 SEMINAR IN THE HISTORY OF AFRICAN-AMERICAN WOMEN

See Government and International Relations 225. Ms. Grier/Offered every year

252 RACE AND AMERICAN SOCIETY

See Sociology 252. Ms. Tenenbaum/Offered every year

285 POVERTY/SEMINAR

See Sociology 246. Mr. Ross/Offered every other year

Courses on Race and Ethnicity Outside the United States (Choose a minimum of one course)**103 AFRICA AND THE WORLD**

See History 103. Ms. Grier/Offered every year

120 INTRODUCTION TO SOCIAL ANTHROPOLOGY

See International Development and Social Change 120. Staff/Offered every year

173 HISTORY OF RACIAL THOUGHT IN MODERN EUROPE

See History 173. Mr. Gellately. Offered every year

178 SOUTH AFRICA: HISTORY AND CONTEMPORARY POLITICS

See Government and International Relations 178. Ms. Grier/Offered every year

210 PALESTINE, ISRAEL, AND THE ISRAEL-ARAB CONFLICT

See Government and International Relations 210. Staff/Offered periodically

228 COMPARATIVE POLITICS OF RACE, ETHNICITY, AND GENDER

See Government and International Relations 228. Ms. Enloe/Offered every other year

230 ARMENIAN GENOCIDE

See Government and International Relations 230. Staff/Offered periodically

232 CONVERGING CULTURES IN THE AGE OF DISCOVERY/SEMINAR

See Art History and Criticism 232. Mr. Bailey/Offered periodically

239 HISPANIC-CARIBBEAN FICTION

See Spanish 239. Ms. Acosta-Cruz/Offered periodically

245 HISPANIC-AMERICAN SHORT STORY

See Spanish 245. Mr. Ferguson, Ms. D'Lugo/Offered periodically

260 ROOTS AND ROUTES: IMMIGRANTS, DIASPORAS AND TRAVEL

See Sociology 260. Ms. Bhachu/Offered every other year

262 JEWS AND CHRISTIANS IN THE ANCIENT WORLD

See Classics 262. Mr. Burke/Offered every other year

284 THE HOLOCAUST AND ITS AFTERMATH

See History 284. Ms. Dwork/Offered every year

Independent Study Courses

299 SEC. 1 DIRECTED READINGS

Staff/Offered every year

299 SEC. 5 SPECIAL PROJECTS

Staff/Offered every year

299 SEC. 9 INTERNSHIP

Staff/Offered every year

URBAN DEVELOPMENT AND SOCIAL CHANGE

Core Faculty Advisers

Sharon P. Krefetz, *Government*, program director: U.S. urban politics, suburban politics, women and politics, housing policy

Susan Hanson, *Geography*: urban/social geography, transportation, research methods, geography and gender

Amy Richter, *History*: U.S. urban history, U.S. women's history

Laurie Ross, *IDCE*: community development and planning

Robert J.S. Ross, *Sociology*: urban studies, political sociology, political economy, social policy

Participating Faculty

Martyn Bowden, *Geography*: cultural humanistic and historical/urban/social geography

John Brown, *Economics*: economic history, European economy

Thomas Del Prete, *Education*: teacher education, professional-development schools, building learning communities, spirituality and education

Timothy J. Downs, *IDCE*: environmental science and engineering, sustainable development

Jacqueline Geoghegan, *Economics*: environmental economics, econometrics.

Janette Greenwood, *History*: American social history, African-American history, and history of the South

Bruce London, *Sociology*: environment and society, community, sociology of the Third World, social demography

James McHale, *Psychology*: family theory and measurement, community psychology and prevention

Sarah Michaels, *Education*: relationships among language, discourse, culture, and schooling; discourse analysis relating to classroom life and learning; teacher research

Andrew Merrifield, *Geography*: political theory, urban geography

Heather Roberts, *English*: American literature, popular culture, gender studies

Dianne Rocheleau, *Geography*: political ecology; gender; forestry/agriculture/land use; culture/power/environment/development

Undergraduate Program

Urbanization has been one of the most powerful processes defining American life in the 20th century. More than three-quarters of the U.S. population is currently classified as urban, suggesting that in many ways understanding contemporary America requires understanding cities—the broad patterns and notable variations in their growth, decline, and, in some cases, revitalization. The urban development and social change concentration provides students majoring in any field with a structured program of study that enables them to understand the historical, social, economic, and political factors that have shaped U.S. cities and how cities have, in turn, affected the lives of their inhabitants.

The study of urban development and social change is made all the more significant since more than half of the world's population will soon be living in cities, and urbanization will undoubtedly be one of the key forces shaping life in the 21st century.

Students in the urban development and social change concentration study the key concepts and methodological tools used to explore and analyze urban phenomena, focusing primarily on cities in the United States. Students may also choose to take a course that examines urbanization in other parts of the world. Proceeding from an introductory course through intermediate and advanced courses offered in several different departments, students then apply these concepts and methods in their capstone experience. The capstone can be either a research project or an internship, conducted under the supervision of one of the urban development and social change concentration's participating faculty members or done as part of an urban research or internship seminar.

For their capstone projects, students in the concentration are encouraged to take advantage of the unparalleled opportunities for field research and applied learning that are offered by Clark's location in the center of Worcester. Like many medium-sized cities in the Northeast and Midwest, Worcester has experienced significant social, economic, and political changes over the past few decades, which make it a superb laboratory for learning. Moreover, Clark's involvement in the University Park Partnership (UPP)—a partnership the University forged with neighborhood groups, city and state government agencies, and businesses—provides unique opportunities for students to contribute to innovative efforts to improve education, housing, and economic and social conditions in our inner-city neighborhood.

Requirements

1. Students must take a minimum of seven courses in the concentration, including the capstone project.
2. The seven courses must come from three or more different departments.
3. One of these courses, which should be taken at the outset, must be an introductory course, selected from Group A.

4. One of these courses must be a research-methods course, which should be taken as early as possible, selected from Group B.
5. At least three additional courses focusing on U.S. cities must be taken from Group C. At least two of these courses must be at the 200 level.
6. One of the seven courses may be selected from Group D and have a non-U.S., international, or comparative focus.
7. One of the seven courses must include a culminating capstone experience, consisting of a research or internship project, done either as part of an Urban Research or Internship Seminar or as a directed project supervised by a core faculty adviser or a participating faculty member in the urban development and social change concentration.
8. No more than two courses in the concentration can also be used to satisfy the requirements of a major, minor, or other concentration (excluding courses required for the major).

Students pursuing the concentration will receive advice from one of the core faculty advisers on selecting appropriate courses for the concentration.

Courses

Group A: Introductory Courses

- GEOG 170 Divided Cities/Connected Lives, S. Hanson
- GOVT 171 Urban Politics: People, Power and Conflict in U.S. Cities, S. Krefetz
- HIST 113 U.S. Urban History and Landscapes, A. Richter
- SOC 125 Cities and Suburbs, R. Ross

Group B: Research Methods Courses

- GEOG 141 Research Methods in Geography, staff
- GOVT 107 Research Methods in Politics, B. Cook, S. Krefetz
- GOVT 171 Urban Politics: People, Power and Conflict in U.S. Cities, S. Krefetz
- SOC 170 The Social Research Process, P. Ewick, D. Merrill

Group C: U.S. Urban Courses

ARTS 258: A Sense of Place, E. Crocker
ECON 277 Urban Economics, J. Brown
EDUC 112/COMM 020 Transformative
Schooling: Culture, Community,
Education and Society, S. Michaels
EDUC 152 Complexities of Urban
Schooling, Staff
EDUC 220 Field Methods and Qualitative
Research: Teaching and Learning in
Urban Settings, S. Michaels
ENG 188 The City in American
Literature, H. Roberts
GEOG 020 Introduction to Urban and
Regional Development, A. Merrifield
GEOG 030 Immigrants and the City: The
World Comes to Worcester, S. Hanson
GEOG 120 New York: History, Culture
and Politics, A. Merrifield
GEOG 142 Cities and Culture: The
American City, M. Bowden
GEOG 159 Visions of the Modern
Metropolis: The Marriage of Heaven and
Hell, A. Merrifield
GEOG 240 The End of America: Los
Angeles, M. Bowden
GEOG 244 Gender, Work and Space, S.
Hanson
GEOG 254 Car Trouble? (Urban
Transportation), S. Hanson
GEOG 258 Utopian Visions, A. Merrifield
GEOG 262 Introduction to Urban
Geography, A. Merrifield
GEOG 265 Modernism, Postmodernism and
the City, A. Merrifield
GEOG 280 Urban Ecology, D. Rocheleau
GOVT 172 Suburbia: People and Politics,
S. Krefetz
*GOVT 221 Urban Policy/ Seminar and
Internship, S. Krefetz
*GOVT 282 Seminar on Housing and
Community Development Policies, S.
Krefetz

*HIST 203 Seminar in U.S. Urban History,
A Richter
HIST 213 Gender and the City in the
U.S., A. Richter
*HIST 220 Community History, J.
Greenwood
ID 296 GIS and Local Planning, staff
*IDCE 263 Youth and Community
Development, L. Ross
*IDCE 264 Field Research in Youth
Development and High-School
Transformation, L. Ross
*IDCE 332 Environmental and Social
Impacts, T. Downs
*IDCE 346 Practicum in Community
Development, L. Ross
*PSYCH 211 Laboratory in Community
Psychology, J. McHale
SOC 285 Poverty Seminar, R. Ross
*SOC 299.9 Internships in Sociology
(depending on the specific focus)
SPAN 117 Field Work in the Hispanic
Community, C. Montross
*indicates this course may be used to fulfill
the capstone requirement

Group D: Comparative or International Urban Courses

ARTH 114 Ancient Cities and
Sanctuaries, R. Townsend
ARTH 216 Architecture and Democracy,
R. Townsend
CMLT/ENG 288 Art of the City: Paris and
New York, J. Conron and M. Spingler
GEOG 242 Cities and Culture: The
European City, M. Bowden
*SOC 290 Cities in Global Perspective, R.
Ross
SOC 232 Population, Environment, and
Development, B. London

WOMEN'S STUDIES

Program Faculty

Maria Acosta Cruz, Ph. D., Department of Foreign Languages and Literatures: Latin-American and Caribbean literature, nationalism, women and literature

Margarete Arndt, D.B.A., Graduate School of Management: health-care management, women in the health-care system

Kiran Asher, Ph.D., Department of International Development and Social Change: community and environment; women and environment, biodiversity, Latin America

Parminder K. Bhachu Ph. D., Department of Sociology: cultural identities and global processes: British cultures, international migration and immigration, race, ethnicity, gender, culture, class and consumption

Mary Ellen Boyle, Ph.D., Graduate School of Management: gender in organizations

Marcia Butzel, Ph.D., Department of Visual and Performing Arts: film and cultural studies, comparative arts, feminist film theory

Carol C. D'Lugo, Ph.D., Department of Foreign Languages and Literatures: Latin-American literature, Spanish culture, Mexican women writers

Judith Wagner DeCew, Ph.D., Department of Philosophy: privacy, philosophy of law, social and political theory, feminist theories

Jacque L. Emel, Ph.D., Department of Geography: hydrology, social theory and nature, women's role in mineral industry restructuring, feminist critiques of the resource state

***Cynthia Enloe, Ph.D.,** Research Professor, nonteaching: research and graduate supervision only

Patricia M. Ewick, Ph.D., Department of Sociology: research methods, gender and law, criminology

Rachel Joffe Falmagne, Ph.D., Department of Psychology: women, psychology and society, language and thought, semantic development, reasoning

Amy Froide, Ph.D. Department of History: women in European history, gender, class, and race in modern Britain, women in British history

Beth Gale, Ph.D., Department of Foreign Languages and Literatures: girlhood and coming of age in French novels, French literature and society

SunHee Kim Gertz, Ph.D., Department of English: western European medieval literature, literary theory, characterizations of women

Eric Gordy, Ph.D., Department of Sociology: social theory, transitions to democracy, former Yugoslavia, sociology of media and popular culture

Bonnie Lee Grad, Ph.D., Department of Visual and Performing Arts: 19th and 20th century American and Western European painting, history of landscape art, women artists, Georgia O'Keefe

Janette T. Greenwood, Ph.D., Department of History: African-American history, southern history, Worcester history

Beverly C. Grier, Ph.D., Department of Government and International Relations: African politics, politics of land, women's and children's labor, African-American women

Laura Hammond, Ph.D., Department of International Development: community and environment, women in international humanitarian aid, Ethiopia, gender and social anthropology

Susan Hanson, Ph.D., Department of Geography: feminist geography, urban-social geography, transportation, local labor markets, women in Worcester

Serena S. Hilsinger, Ph.D., professor emeritus, Department of English: Modernist literature, women writers, Virginia Woolf

Fern L. Johnson, Ph.D., Department of English: language, communication and culture, with special emphasis on gender and race, feminist linguistics

Dorothy Kaufmann, Ph.D., Department of Foreign Languages and Literatures: French women writers, Francophone literature worldwide

Sharon Perlman Krefetz, Ph.D., Department of Government and International Relations: urban politics, suburban politics, women and U.S. politics

Deborah M. Merrill, Ph.D., *Department of Sociology: aging, family, medicine, and demography*
Winston Napier, Ph.D., *Department of English: African-American literature, critical theory, feminist literary theory*

Amy Richter, Ph.D., *Department of History: American women's history, women in cities, women and the railroad*

Heather Roberts, Ph.D., *Department of English: women in American culture and literature, 19th-century American literature*

Dianne E. Rocheleau, Ph.D., *Department of Geography: gender and political ecology, landscape, forestry, environment and development in Africa, the Caribbean and New England*

Paul S. Ropp, Ph.D., *Department of History: Chinese social and intellectual history, women in Chinese society and literature*

Valerie Sperling, Ph.D., *Department of Government: Russian women's politics, women in political movements, feminist theories*

Shelly Tenenbaum, Ph.D., *Department of Sociology: Judaic studies, race/ethnicity, social stratification, Jewish women in the United States and Europe*

Barbara P. Thomas-Slayter, Ph.D., *Research Professor, Department of International Development and Social Change: community organization, Third World women and public policy, rural development, gender and environment*

Virginia M. Vaughan, Ph.D., *Department of English: Shakespeare, Renaissance drama, non-dramatic Renaissance literature, women in the Renaissance England*

Kristen Williams, Ph.D., *Department of Government: women in international politics, national security, politics of globalization, ethnic conflict*

Visit our Clark University Women's Studies Web site for more information on individual faculty

Undergraduate and Graduate Programs

The women's studies program at Clark was launched in 1979. It is broadly interdisciplinary and richly interconnected. It offers both an undergraduate B.A. concentration and a graduate Ph.D. degree. Women's studies stresses the diversity of women's experiences within countries and around the world. Courses stress the importance of social ideas and relationships such as those shaped by gender, ethnicity, race and class, in order to gain understandings of individual and collective experiences, past and present.

Director: Jody Emel, Professor

Office: 1st floor, Carriage House (125 Woodland St.)

Women's Studies Library: 2nd floor, Carriage House. Administrative staff person: Joanne Ljungberg

Web site: <http://www.clarku.edu/departments/womensstudies/>

E-mail: womenstudy@clarku.edu

Undergraduate B.A. Concentration

The women's studies undergraduate concentration may be taken along with any departmental major. It involves taking a total of six courses. Interested students may also self-design a women studies major, which must be approved by the Dean of the College, and the director of women's studies, and a committee of three women's-studies faculty members.

Requirements for Women's Studies Concentration

Six courses:

- WS 110 Introduction to Women's Studies (taken any year)
- Four additional courses listed as part of the women's studies program (it is recommended that these include both social sciences and humanities.) Two of these courses should be at the 200 level
- A one-credit internship or special project, or advanced research seminar in women's studies. Internships have included: mentoring local girls in All Kinds Of Girls; working for

NOW in Boston or in Washington D.C.; interning with a member of Congress or the British Parliament. All internships include readings and a faculty supervisor

Come to the Carriage House, the women's studies office, to sign up for your concentration, or to use the Women's Studies Library, or to talk to the women's studies director. Concentrators have special events coordinated with the student-run Women's Center, highlighted by International Women's Week every March.

Graduate Ph.D. Program

The Ph.D. program was launched in 1992, as one of the first women's studies doctoral programs in the entire United States. It is lodged within a broadly interdisciplinary and globally conscious women's studies program. Faculty from disciplines across the University serve as advisers and dissertation supervisors. Scholarly and intellectual exchanges and collaboration across traditional disciplinary boundaries provide the context in which self-motivated graduate students can flourish. Graduate students take major responsibility for designing their programs and work together to exchange and develop ideas. Among Clark's women's studies doctoral students' interests have been: the life and work of Audre Lorde, American women's organizing across class, women's involvement in early 20th-century advertising, African-American girlhood, the militarization of South Korean women, women's sustainable agriculture in China, feminist readings of science fiction, women and international peacekeeping in East Timor, and constructions of motherhood in postcolonial Trinidad.

Program Goals and Emphasis

The Ph.D. in women's studies is designed for future academics, as well as for activists and professionals in public policy and the private sector. Those with previous work in women's studies, as well as those having done gender-conscious academic work in traditional disciplines, are encouraged to apply.

Clark's program provides Ph.D. candidates with diverse theoretical and methodological approaches to prepare them to formulate their own approaches to the questions they choose to pursue. The Clark women's studies doctoral program is committed to diversity and a global awareness.

Women's studies graduate students are encouraged to collaborate with other Clark graduate students working on gender: e.g., in international development, geography, holocaust studies, English, history and psychology.

Women's studies Ph.D. students must typically enroll in courses for a minimum of two years on campus before taking their doctoral oral exams. The time will be somewhat longer if the student begins the program without a masters degree. After passing the orals, students prepare their dissertation proposal; they research, write their dissertations, typically over the next two years, climaxing in their dissertation defense.

Admission

Note: Admission to the program is for the Ph.D. While a Ph.D. student entering with only a B.A. degree will earn a Clark M.A. degree by reaching the doctoral orals exam, there is no separate women's studies M.A. program. Preferences in admissions will be given to applicants coming with a B.A. plus a completed M.A. degree and/or a B.A. plus significant activist/professional experience in women's issues. Evidence of self-motivation will also be considered.

Applications to the program must include: official transcripts from one's B.A. and/or M.A. college/university; letters of recommendation; an essay describing one's women's studies research interests, past and future, relating those to one's academic, professional, and/or activist experience; and a sample of one's writing. Many Ph.D. students receive tuition-waivers and funded teaching assistantships. Contact the program for application forms.

General Requirements of the Graduate Ph.D. Program

Clark requires a minimum of two years residency for all Ph.D. students: "residency" refers only to the students presence on campus for courses and other programs activities; it does not require living in Worcester itself. After passing one's Ph.D. orals, one may register for dissertation credits while conducting research off campus.

Sixteen units are required for the completion of the Ph.D. Of these, 13 must be taken at Clark. Three of the 16 credits will be waived if the graduate student enters the Clark women's studies program with an M.A. degree in women's studies or in a field related to women's studies. Eight of the total 16 credits must be in women's studies. All courses must be taken at the 300 level. However, if there is an advanced 200-level course listed and the graduate students get permission from the professor to take that course as a 300 level, extra work must be done and the graduate student must register for that course under a 300 number.

The Ph.D. Core - 5 credits

- (WS 300.1 and WS 300.2) Graduate two-part Proseminar in Women's Studies (two semesters, two units) All students are required to take these two courses. Offered every other year.
- (WS 301.1 and WS 301.2) Foundations of Feminist Inquiry, two-parts (two semesters, two units) All students are required to take these two courses. Offered every other year in rotation with WS 300.
- (WS 302) Graduate Research Colloquium in Women's Studies (1 unit) All students are required to participate in this colloquium over four semesters, joining with graduate students in supportive discussions of each other's women's studies research. Graduate students entering program with only a B.A. degree are required to make two colloquia presentations: the first should be accompanied by a formal written paper. If determined

by women's studies faculty to be of publishable quality, this will serve as the students M.A. qualifying paper. The student receives the required one credit on that semester in which they present to the colloquium their own research.

Resources

The Clark University women's studies program is part of the Worcester Consortium in Women's Studies, comprised of seven institutions of higher education, each with their own faculty active in women's studies research and teaching. Worcester also has non-University institutions of value to women's studies students and faculty: the Worcester Ecotarium; the Worcester Art Museum; the Worcester Historical Museum; the American Antiquarian Society; Girls Inc.; Daybreak, a shelter for battered women; and the Worcester Rape Crisis Center. The Clark women's studies faculty members maintain ties with colleges, universities, and research centers on women in both the Boston and Amherst areas, such as the Bunting Institute of Radcliffe/Harvard, the Wellesley Center for Research on Women, and the Five College (Smith, Amherst, Hampshire, Mount Holyoke, University of Massachusetts) Women's Studies Research Center.

Resources available in the area include: Clark University Goddard Library; the Clark Marsh Library on Development and Environment; the American Antiquarian Library of U.S. Colonial History; the Harvard/Radcliffe Schlesinger Library of the History of American, and New Words, the feminist bookstore, both in nearby Cambridge. Clark's women's studies doctoral program is a member of the international network, the National Council for Research on Women; it is also a member of the National Women's Studies Association.

Courses

In addition to courses offered by the undergraduate college and listed below, women's studies undergraduate concentrators and graduate students may enroll in selected courses offered by the College of Professional and Continuing Education (COPACE).

COPACE provides a diverse list of courses that is revised each year and is enriched by collaborations with various cultural institutions in Worcester. Contact the registrar in COPACE directly for current academic year and summer offerings: www.copace.clarku.edu

Numbering: Undergraduate courses are from 100 through 200. Graduate credited courses are both 200/300 and 300.

102 WOMEN AND WAR

See Government and International Relations 102. Ms. Williams

109 CONTEMPORARY WOMEN PLAYWRIGHTS

See Theater Arts 109. Mr. DiIorio

110 INTRODUCTION TO WOMEN'S STUDIES

In this course we will explore the ways in which ideas about femininity and masculinity have shaped women's lives—locally and globally, in the present and historically—and how some women have challenged, even transformed, those meanings and the social relationships that flow from those two potent ideas. Among the topics that may be considered are: beauty, war, sports, politics, women's movements, sexuality, race, work, violence, fashion, family, globalization, feminism, creativity, religion, media, and girlhood. In the fall of 2003, this course will be taught by Prof. Sperling, and will be cross-referenced with Government and International Relations. Every year thereafter, Introduction to Women's Studies will be taught in rotation by one of the following faculty: Prof. Ewing (Sociology), Prof. Richter (History), and Prof. Gale (Foreign Languages and Literatures). The course will always count as women's studies, but each fall it will also be cross-referenced for credit in the home depart-

ment of the professor then teaching it. This course is open to all students in all majors. No prerequisites.

112 FAIRYTALES

See Comparative Literature 112. Ms. Gale

121 INTRO TO CULTURAL ANTHROPOLOGY

This course provides an introduction to social/cultural anthropology's theories and methodologies through study of its principle medium of analysis, the ethnography. Students will explore several different types of cultural study: hunter-gatherers in Central Africa, gender relations in a Middle Eastern society, and contemporary problems in American inner cities. Anthropological approaches to study of power, identity, social structure, religion, ethnicity, economics and development will also be discussed. Students learn the methods of anthropological research first-hand through conducting their own fieldwork projects. (See International Development and Social Change 120) Ms. Hammond/Offered every year

133 SURVEY OF WOMEN WRITERS I

Authors studied include Behn, Burney, Austen, Bronte, Eliot, Gilman, and Chopin. The emphasis is on these British and American female authors and their characters' reactions to, and interactions with, the atmospheres and landscapes of their respective ages. Prerequisite: verbal expression course. Staff/Offered every other year

134 SURVEY OF WOMEN WRITERS II

Covers works written in the 20th century that provide portraits of women in all stages and conditions of life, rendered in a broad spectrum of fictional techniques. The selection of authors and work is based on three major concerns: that it represent a chronological span, that it preserve a certain thematic coherence, and that it allow ample opportunity for discussion of aesthetic matters. Authors include Stein, Mansfield, Woolf, Bowen, Hurston, Porter, Sarton, and Naylor. Prerequisite: verbal expression course. Staff/Offered every other year

136 GENDER AND ENVIRONMENT

Explores how gender is reflected in the landscape, in our settlement and land-use patterns, in environmental history, and in our present ecological science and practice from the global to the local level. Combines lectures, readings, discussions, films, and local field trips. Reviews feminist and other alternative explanations of the gendered nature of knowledge, access, use and control of space and resources in a variety of environments past, present, and possible. Regional focus on New England. Ms. Rocheleau/Offered every year

147 WORLD ORDER AND GLOBALIZATION

See Government and International Relations 147. Ms. Williams/Offered every year

150 INTRODUCTION TO MEDIEVAL LITERATURE

Introduces Western European medieval literature, exploring women in the classical roots and contemporary counterparts in the process. Themes vary each year and include: rhetoric and romance in medieval literature; narratology; the shrinking stage in Western literature; the epic hero and the lady lover; and Ovid in the Middle Ages. Students may repeat the course, provided they study a different theme each time. Ms. Gertz/Offered every year

175 WOMEN AND U.S. POLITICS

Explores the political attitudes, behavior, and status of women in the United States. Views on the nature of women and their "proper" role in society and the government, set forth by classical political philosophers in ancient times, are contrasted with ideas introduced by women's rights theorists, beginning in the 18th century. Focus is on contemporary U.S. politics, including gender differences in political socialization and political participation; the gender gap in voting preferences; women as politicians and bureaucrats; and the influence of women on public policies. Ms. Krefetz/Offered every other year

176 THE FAMILY

Examines the assumed collapse of the American family and the causes of this collapse. Also examines challenges to the new family, such as dual-career couples and the resulting division of labor in the home. Working class, African-American, and homeless families are also discussed. Staff/Offered every year

184 LANDSCAPE AS REVELATION: ART OF GEORGIA O'KEEFE

Examines cultural and geographic issues through focus on Georgia O'Keeffe's work. Like many 20th-century modernists, she turned away from the technological urban world to search for elemental landscapes. From her experiences of the southwestern desert and the rituals of Hispanic and Native American cultures, she forged a spiritual art with moral importance that was unique in its time. Readings include Thoreau, Emerson, Paul Tillich, Willa Cather, Mabel Dodge Luhan, Ruth Benedict, and Mircea Eliade. Ms. Grad/Offered every other year

210 COMING OF AGE IN THE FRENCH NOVEL

See French 210. Ms. Gale/Offered periodically

213 GENDER AND THE CITY IN THE U.S.

Focusing on the 19th and 20th centuries, the course examines where American urban life for men and women diverged and where it met. Readings on men, women, and urban space, reform movements, utopian ideals, and other topics are followed by student research projects using local resources. Ms. Richter/Offered periodically

215 20TH-CENTURY FRANCOPHONE WOMEN WRITERS

See French 215. Ms. Kaufmann

219 HISTORY OF AMERICAN WOMEN

Examines the female experience in the United States, focusing on issues of power, race, ethnicity, and class, and concepts of work, family, and gender, with the ramifications for the world of both sexes. Fulfills the historical perspective requirement. Ms. Richter/Offered every year

222 WOMEN IN THE HEALTH-CARE SYSTEM

See Management 222. Mr. Arndt

224 AFRICAN-AMERICAN WOMEN

Examines historical experiences of African-American women from the period of slavery to the present. Examines their roles in economy and politics, resistance to racial and sexual oppression, and historical relationship to white women's movements. Comparisons are made between black women's experiences in the United States, the Caribbean, and South Africa. Grier/Offered every other year

225 RELIGION AND U.S. SOCIETY

See Sociology 225. Staff

237 FEMINISM, NATURE, AND CULTURE

An in-depth study of feminist theories of science, rationality, and morality as they apply to nature-society relations. The cultural politics of nature across time and space are examined. Film, literature, government reports, and academic writing are used to show how images and truths about nature and society are constructed. Ms. Emel/Offered every other year

242 FEMINIST CRITICAL THEORY/SEMINAR

Focuses on the canon of postmodern feminist literary theory produced by the African-American feminist/womanist school, the ecriture feminine school, the Canadian Freudian school, and the American generalist school. Target issues include authorial power and revisionary identities, body as text, deconstruction as feminist practice, principles of psycho-political liberation, racialized gender, and resistance to the universalizing traditions of phalloculturalism. Mr. Napier/Offered every other year

244 GENDER, WORK, AND SPACE/SEMINAR

How do gender, race, class, and ethnicity propel people into certain types of work? What role do location and space play in shaping and sustaining such divisions? Why do women, youth, and minorities hold jobs that are distinctly different from other workers jobs? How can a geographic understanding of gender,

class, and ethnicity help explain the current restructuring of the global economy? How effective have women been (or can they be) in organizing to improve their economic and social status? Materials focus on local and global urban industrialized settings. Ms. Hanson/Offered periodically

247 WOMEN IN SOCIETY

Examines women's psychological functioning and development in broad societal context to foster a broadly based understanding of, and clarify interactions between, the cultural, historical, economic, and institutional factors. Discusses anthropological and sociological examinations of women's cultural status in various societies, and of economic, historical, and symbolic factors impinging on the individual. Studies women's personal development, life issues, intellectual functioning, power, and roles in society. Ms. Joffe Falmagne/Offered every other year

248 WOMEN AND ART

Explores the history of women artists and the nature of their professional involvement in the art institutions of their day. It explores women as subjects in art, femininity and masculinity as cultural constructs, the concept of genius as myth, and the nature of objectivity. Readings include Linda Nochlin, Thalia Gouma-Peterson, Lucy Lippard, Rozsida Parker and Griselda Pollack, and John Berger. Ms. Grad/Offered periodically

249 SIGNS AND CROSSROADS: SEMIOTIC THEORY AND PRACTICE

Approaches semiotic theories comparatively from a historical point of view, as well as from a theoretical point of view that breaks them down into three different schools (American, French, and Italian). In addition to learning about semiotic theories, the student is also able to practice them in a comparative mode; use in areas such as literature, film, advertising, and drama is address and analyzed. Ms. Gertz/Offered periodically

250 MEDIEVAL LITERATURE

Emphasizes literary theory as well as literature of the Middle Ages. Attempts to achieve a sense of gendered medieval literary culture and uses texts from Europe and Great Britain as well as from the classical period. Texts vary each time the course is offered. Ms. Gertz/Offered every other year

251 CHAUCER/SEMINAR

Guides the student through Book of the Duchess, The House of Fame, The Parliament of Fowls, some Canterbury Tales, and Troilus and Criseyde, exploring ideas and ideals of womanhood and manhood. All texts are taught in Middle English, and selections may vary. (No prior knowledge of Middle English required.) Ms. Gertz/Offered every other year

254 STILL SPACES: EAST MEETS WEST—COMPARATIVE PRACTICE IN THE CLASSROOM

Probes how women are represented in translated, primary texts from 17th- and 18th-century China and from 12th- through 14th-century medieval Western Europe. Secondary texts and illustrations will be examined theoretically, literally, and historiographically. Explores how representations work with stereotypes and whether they have relevance today. Prerequisites: An Asian or western literature course. Ms. Gertz and Mr. Ropp/Offered periodically

255 STUDIES IN THE RENAISSANCE

Explores the poets, playwrights, and prose writers who shaped the English literary Renaissance. Authors may include Thomas More, Philip Sidney, Edmund Spenser, Christopher Marlowe, Mary Wroth, John Donne, William Shakespeare, Elizabeth Cary, George Herbert, Ben Johnson, Thomas Middleton, and John Webster. Their writings are placed in the gendered sociopolitical context of the 16th and 17th centuries. Prerequisite: permission of the instructor. Ms. Vaughan/Offered every other year

256 EDUCATION IN THE FRENCH NOVEL

See French 245. Offered in English. Ms. Gale/Offered periodically

257 WOMEN AND WORK IN PRE-INDUSTRIAL EUROPE

See History 249. Ms. Froide

258 WOMEN IN JEWISH CULTURE

Uncovers the experience of Jewish women, using gender analysis to enrich understanding of Jewish life. Critical questions about the status of women in texts, rituals, and communal practices from the biblical period to the present will be raised. Ms. Tenenbaum/Offered every other year

271 RACE, MIGRATION, GENDER, AND ETHNICITY

Examines migration patterns and the impact of migration on ethnicity from the perspectives of gender and race. Focuses on the impact of the economic on the cultural, as examined through the impact of migration and women's engagement in the wage-labor market. Explores changes in the sexual division of labor within the household and new cultural patterns for women. Emphasis is placed on the importance of class, ethnicity, and race in the formation of gendered ethnic cultures, and formation of ethnic identities as they are influenced by local economic and political factors. Ms. Bhachu/Offered every other year

275 GENDER AND GLOBAL CHANGE

See International Development and Social Change 285. Staff/Offered every other year

277 GENDER, ENVIRONMENT AND DEVELOPMENT

Considers the gender division of control, responsibility, knowledge, labor, and benefits in the definition, use, management, and protection of natural resources in developing countries. Readings, lectures, and discussion focus on the distinct perspectives and concerns of women and men as actors in natural-resource use and management and in local, regional, and global ecological transformations. Ms. Rocheleau/Offered every other year

282 CHINESE WOMEN IN LITERATURE AND SOCIETY

Examines the changing role of women in Chinese society from the 17th century to the present, primarily through the reading and discussion of Chinese literature in English translation. Mr. Ropp/Offered every other year

288 GENDER AND FILM

Explores the ways that gender is produced by the social technologies of film and video. We will consider how concepts of gender difference organize representation, narrative, and spectatorship in Hollywood and alternative cinema. Course readings will be theoretical and critical, featuring the contributions of feminist film scholars and critics. Prerequisite: 101 or permission of the instructor. Ms. Butzel/ Offered every other year

292 GLOBAL ETHNOGRAPHIES

Focuses on emergent ethnographic concerns that attempt to capture fluid cultural processes and connections as they unfold in late-1990's global arenas. Deals with multiple-sited ethnography of movement, displacement, and replacement, and the global traffic in culture. Analyzes traditional ethnographies and ethnographic methods of the founding pioneers—including the work of the famous Clark University ethnographer, Franz Boas. The conventional ethnographic mode of an intense focus on a single site—often in recent times analyzed in relation to a world system—is no longer a viable method. So how can we examine transnational connections and commodity circuits that most of us are a part of in the late 20th century? What methods of tracking can we implement to capture these fluid domains and borderless cultural and economic spaces? Indeed, how can we develop ethnographic methods of observation that can follow the object, trace cultural and consumer trends and track political events, influential persons, news media items and document their global impacts on local sites. Ms. Bhachu/Offered every other year

294 HISTORY OF THE ENGLISH LANGUAGE

Examines changes in English during the Anglo-Saxon, medieval, and early modern periods. In addition to learning phonological and grammatical characteristics of the language during each period, the student examines language as a mirror of culture. Ms. Gertz/ Offered periodically

295 GENDER AND DISCOURSE

Focuses on ways in which biological sex is culturally elaborated into gender patterns in language use. Consideration is given to a range of conversational and rhetorical factors that reveal gender identity. Discussion of race, ethnicity, and social position, as well as the impact of gendered discourse for situations such as the classroom, courtroom, boardroom, and medical examination room. Ms. Johnson/Offered every year

296 INTERNSHIP SEMINAR: GENDER

Ms. Tenenbaum/Offered periodically

299 UNDERGRADUATE DIRECTED READINGS IN WOMEN'S STUDIES (TUTORIAL)

299.1 UNDERGRADUATE DIRECTED RESEARCH IN WOMEN'S STUDIES (TUTORIAL)

299.2 UNDERGRADUATE SPECIAL PROJECT IN WOMEN'S STUDIES (TUTORIAL)

299.9 UNDERGRADUATE INTERNSHIP IN WOMEN'S STUDIES (TUTORIAL)

300.1 AND 300.2 GRADUATE PROSEMINAR IN WOMEN'S STUDIES (2 CREDITS)

Surveys theoretical analysis and empirical research on women in societies and cultures, cultural representations of women, and women's individual functioning and development. Draws on expertise of program faculty and introduces all three areas of concentration. Reflects interdisciplinary linking and fosters integration between theoretical perspectives and between levels of analysis. Topics include women and economic development; women, societies, and the political process; women's history and diversity; the gendering of social institutions and of labor practices; sociolinguis-

tic, semiotic and cognitive analysis of language, gender, and power; the social construction of gender, self, and identity; feminist perspectives on diversity and difference; and representation of women in the arts. Topics vary yearly. Mandatory. Staff/Offered every other year

301.1 AND 301.2 FOUNDATIONS OF FEMINIST INQUIRY

Reviews recent theoretical analysis and methodological issues pertaining to feminist inquiry in the humanities and social sciences. Provides an interdisciplinary analysis of theories of gender and the relations between gender and power. The approaches surveyed will reflect alternative theoretical perspectives and span literary and cultural theory, social and political theory, feminist epistemology, theories of differences, and theories of individual development. Mandatory. Staff, Offered every other year in rotation with WS 300

302 GRADUATE RESEARCH COLLOQUIUM IN WOMENS STUDIES (1 CREDIT)

Taken by graduate students during all of their four on-campus semesters. Students present research in progress. If the graduate student enters without a masters degree, she/he will present two colloquia presentations: the first will serve as her/his M.A. qualifying paper. The Ph.D. presentation should be on research related to the dissertation proposal. Students formally register for the course during the semester they expect to present. During the semester that they do not present, they will attend as participants. Offered every semester. Mandatory.

303 SOCIAL ANALYSIS AND ACTION-NORTH AND SOUTH

Focuses on a critical concern for this century—the enduring inequalities that plague much of the world's population. With the scale of human poverty increasing in the context of new-liberal discrimination in all forms—whatever their basis—bear close examination. This course in social relations analysis explores the

patterns and trends creating and maintaining disadvantage; it identifies approaches to social impact assessment (SIA), and enables students to work in teams to assess the structures, processes and politics of disadvantage in a specific social system. Staff /Offered every other year

305 FEMINIST FILM THEORY AND CRITICISM

Explores the emergence of feminist film criticism and its subsequent elaboration in semiotics, psychoanalysis, marxism, and poststructural approaches to culture. Emphasizes on understanding the role of critical theory in feminist analysis of contemporary culture, particularly film and television texts. Reading includes Freud, Foucault, Lacan, Metz, Mulvey, de Lauretis, and Doane. Students will analyze film, video, and television texts in weekly screenings and discussions. Open to advanced undergraduates with permission. Ms. Butzel/Offered periodically

326 FEMINIST PERSPECTIVES ON MIND, SELF, IDENTITY, AND DEVELOPMENT

Surveys several approaches that examine how self, mind, and identity are constituted and develop in societal context, with particular focus on gender as one category of analysis, both discursive and material. Selected works illustrating these different perspectives as well as some of their current debates will be studied. Prerequisite: permission. Ms. Falmange/Offered periodically

335 FEMINIST GEOGRAPHY/SEMINAR

Explores the intersection of feminism and geography. Topics include feminist theory, epistemological questions in feminist geography, social movements, welfare politics and the state, and work. Ms. Hanson/Offered every other year

342 GRADUATE SEMINAR: 19TH-CENTURY FEMALE WRITERS

See English 342. Ms. Roberts

343 FEMINIST CRITICAL THEORY

See Women's Studies 242. Mr. Napier/Offered periodically

347 WOMEN IN SOCIETY

See Women's Studies 247. Ms. Joffe
Falmagne/Offered every other year

349 SIGNS AND CROSSROADS IN SEMIOTIC THEORY

See Women's Studies 249. Ms. Gertz/Offered periodically

350 MEDIEVAL LITERATURE

See Women's Studies 250. Ms. Gertz/Offered periodically

351 CHAUCER

See Women's Studies 251. Ms. Gertz/ Offered periodically

353 THIRD WORLD WOMEN AND GENDER IN ECONOMIC DEVELOPMENT

See International Development, Community, and Environment 354.

355 THIRD WORLD WOMEN AND GENDER IN ECONOMIC DEVELOPMENT

How did Third World women and gender concerns enter economic development discourses? How have Third World women and gender been conceptualized within development practices? In turn, how have feminist theories about women and gender shaped economic development discourses? In exploring these issues, this graduate seminar will eschew the divide between theory and praxis that plagues development literature.

357 WOMEN AND WORK IN PRE-INDUSTRIAL EUROPE

See Women's Studies 257. Ms. Froide/Offered every other year

359 HUMANITARIAN ASSISTANCE IN CONFLICT/POST CONFLICT SITUATIONS

See International Development, Community and Environment 359. Ms. Hammond

394 HISTORY OF THE ENGLISH LANGUAGE

See Women's Studies 294. Ms. Gertz/Offered periodically

395 GENDER AND DISCOURSE

See Women's Studies 295. Ms. Johnson/
Offered every year

399.1 GRADUATE DIRECTED READINGS IN WOMEN'S STUDIES (TUTORIAL)

Staff/Offered every semester

399.2 GRADUATE DIRECTED RESEARCH IN WOMEN'S STUDIES (TUTORIAL)

Staff/Offered every semester

399.3 GRADUATE DIRECTED WRITINGS IN WOMEN'S STUDIES (TUTORIAL)

Staff/Offered every semester

399.4 GRADUATE SPECIAL PROJECT IN WOMEN'S STUDIES (TUTORIAL)

Staff/Offered every semester

Directory



FULL-TIME INSTRUCTIONAL FACULTY

Maria I. Acosta Cruz, Ph.D., Associate Professor of Spanish. B.A., University of Puerto Rico, Mayaguez, 1978; M.A., State University of New York, Binghamton, 1980; Ph.D., 1984. (1986-)

Michael E. Addis, Ph.D., Associate Professor of Psychology. B.A., University of California, Berkeley, 1987; Ph.D., University of Washington, Seattle, 1993. (1995-)

Charles C. Agosta, Ph.D., Associate Professor of Physics. B.A., Wesleyan University, 1980; Ph.D., Duke University, 1986. (1991-)

David P. Angel, Ph.D., Professor of Geography; Leo L. and Joan Kraft Laskoff Professorship in Economics, Technology and Environment; Provost and Vice President for Academic Affairs. B.A., Cambridge University (England), 1980; M.A., University of California, Los Angeles, 1984; Ph.D., 1988. (1987-)

Yuko Aoyama, Ph.D., Assistant Professor of Geography. B.A., International Christian University, Tokyo, 1986; M.A., University of California, Los Angeles, 1990; Ph.D., University of California, Berkeley, 1996. (2000-)

Margarete Arndt, D.B.A., Professor of Management. M.B.A., Simmons College, 1982; D.B.A., Boston University, 1991. (1990-)

Kiran Asher, Ph.D., Assistant Professor of International Development, Community Planning, and Environment. B.S., St. Xavier's College, Bombay, 1987; M.E.M., Duke University, 1990; Ph.D., University of Florida, 1998. (2002-)

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Sang Hoo Bae, Ph.D., Assistant Professor of Economics. B.S., Pusan National University, 1998; Ph.D., Michigan State University, 2003. (2003-)

Gauvin A. Bailey, Ph.D., Associate Professor of Art History. B.A., Trinity College, University of Toronto, 1989; M.A., University of Toronto, 1990; Ph.D., Harvard University, 1996. (1997-)

Michael Bamberg, Ph.D., Professor of Psychology. M.Phil., University of York, England, 1978; Ph.D., University of California, Berkeley, 1985. (1986-)

Daniel M. Bernhofen, Ph.D., Associate Professor of Economics. M.S. in Mathematics, Syracuse University, 1987; M.A. in Economics, 1991; Ph.D., 1994. (1994-)

Parminder K. Bhachu, Ph.D., Professor of Sociology. B.Sc., University College, London, 1976; Ph.D., London University, 1981. (1991-)

Roger Bibace, Ph.D., Professor of Psychology. A.B. University of British Columbia, 1949; Ph.D., Clark University, 1957. (1957-1994)

Barbara Bigelow, Ph.D., Professor of Management. B.A., Cornell University, 1973; M.A., Simmons College, 1980; Ph.D., Sloan School of Management, Massachusetts Institute of Technology, 1987. (1989-)

S. Leslie Blatt, Ph.D., Professor of Physics and Education. A.B., Princeton University, 1957; M.S., Stanford University, 1959; Ph.D., 1965. (1987-)

Martyn J. Bowden, Ph.D., Professor of Geography. Adjunct Professor of Comparative Literature. B.A., London University, 1957; M.A., University of Nebraska, 1959; Ph.D., University of California, Berkeley, 1967. (1964-)

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Nancy Budwig, Ph.D., Professor of Psychology; Dean of Graduate Studies and Research. B.A., Vassar College, 1979; Ph.D., University of California, Berkeley, 1986. (1986-)

Sarah D. Buie, M.F.A., Professor of Graphic Design. B.S., Wellesley College, 1971; M.F.A., Yale University, 1978. (1981-)

Paul F. Burke Jr., Ph.D., Professor of Classics; Adjunct Professor of History. A.B., Stanford University, 1965; Ph.D., 1971. (1976-)

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John J. Conron, Ph.D., Professor of English; Adjunct Professor of Comparative Literature; Adjunct Professor of Art History and Criticism. A.B., Brown University, 1961; M.A. University of Michigan, 1966; Ph.D., 1970. (1977-)

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Judith W. DeCew, Ph.D., Professor of Philosophy; Chair, Department of Philosophy. B.A., University of Rochester; M.A., University of Massachusetts-Amherst; Ph.D., 1978. (1987-)

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Patrick G. Derr, Ph.D., Professor of Philosophy. B.A., Seattle University, 1972; Ph.D., University of Notre Dame, 1976. (1976-)

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- Susan A. Foster, Ph.D.**, Associate Professor of Biology. B.A., University of Wisconsin, 1974; Ph.D., University of Washington, 1984. (1995-)
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- Amy M. Froide, Ph.D.**, Assistant Professor of History. B.A. University of San Diego, 1988; M.A. 1990; M.A., Duke University, 1992; Ph.D., 1996. (2001-)
- Beth W. Gale, Ph.D.**, Assistant Professor of French. B.A., University of Delaware, Newark, 1993; M.A., University of Pennsylvania, Philadelphia, 1996; Ph.D., 1999. (2001-)
- Robert Gellately, Ph.D.**, Professor and Strassler Family Chair for the Study of Holocaust History. B.A., Memorial University, Newfoundland, Canada, 1968; B.Ed., 1970; Ph.D., London School of Economics and Political Science, 1974. (1998-)
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- SunHee Kim Gertz, Ph.D.**, Professor of English; Chair, Department of English; Director, Leir Center in Luxembourg. B.A., Carnegie-Mellon University, 1973; M.A., State University of New York, Binghamton, 1977; Ph.D., University of Chicago, 1983. (1985-)
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- Laura M. Graves, Ph.D.**, Associate Professor of Management. B.A., College of William and Mary, 1977; M.A., University of Connecticut, 1980; Ph.D., 1982. (1989-)
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- Frederick T. Greenaway, Ph.D.**, Professor of Chemistry. Adjunct Professor of Biology. B.Sc., University of Canterbury, New Zealand, 1969; Ph.D., 1973. (1980-)
- Janette T. Greenwood, Ph.D.**, Associate Professor of History; Chair, Department of History. A.B., Kenyon College, 1977; M.A., University of Wisconsin, Madison, 1978; Ph.D., University of Virginia, 1991. (1991-)
- Beverly C. Grier, Ph.D.**, Associate Professor of Government. M.A., Yale University, 1975; Ph.D., 1979. (1986-)
- Sharon A. Griffin, Ph.D.**, Associate Professor of Education; Adjunct Associate Professor of Psychology. B.A., McGill University, 1965; M.Ed., University of New Hampshire, 1970; Ph.D., University of Toronto, 1988. (1989-)
- Wendy S. Grolnick, Ph.D.**, Associate Professor of Psychology. B.A., Cornell University, 1981; M.A., University of Rochester, 1984; Ph.D., 1987. (1991-)
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- Susan E. Hanson, Ph.D.**, The Jan and Larry Landry University Professor of Geography; Director, Graduate School of Geography. A.B., Middlebury College, 1964; M.S., Northwestern University, 1969; Ph.D., 1973. (1981-)

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Linda M. Kennedy, Ph.D., Associate Professor of Biology; Adjunct Associate Professor of Psychology. A.B., Simmons College, 1975; R.N., Ph.D., Harvard University, 1979. (1983-)

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Denis A. Larochelle, Ph.D., Associate Professor of Biology. B.A., University of New Hampshire, Durham, 1983; M.S., 1985; Ph.D., Stanford University, 1991. (1997-)

Thomas J. Leonard, Ph.D., Dr. Mary Despina Lekas M.D., D.Sc. Endowed Chair in Biology; Chair, Department of Biology. B.A., Clark University, 1962; Ph.D., Indiana University, 1967. (1994-)

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Douglas J. Little, Ph.D., Professor of History; Associate Provost and Dean of the College. B.A., University of Wisconsin, 1972; M.A., Cornell University, 1975; Ph.D., 1978. (1978-)

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ACADEMIC CALENDAR 2003-2004



FALL 2003

Aug. 20-21	Early and international student orientation
Aug. 22-26	Orientation for all new undergraduate students
Aug. 25	Orientation for all new graduate students
Aug. 26	Registration for all new graduate students
Aug. 26	Residence halls open at 9 a.m. for returning students
Aug. 26	Registration for all new undergraduate students
Aug. 26	Financial clearance for continuing undergraduate students
Aug. 27	First day of classes; Monday schedule; convocation at 4 p.m.
Sept. 1	Labor Day - no classes
Sept. 3	Last day to add/drop a course without College Board petition
Oct. 20-21	Midterm break - no classes
Oct. 31	Last day to withdraw with a grade of W
Nov. 26-30	Thanksgiving recess
Dec. 10	Last day of classes
Dec. 11, 13-14	Reading days
Dec. 12, 15-17	Final exams
Dec. 18	Exam make-up day

SPRING 2004

Jan. 19	Residence Halls open at 9 a.m.
Jan. 19	Financial clearance for all continuing undergraduate students
Jan. 20	First day of classes
March 8-12	Midterm break
April 2	Last day to withdraw with a grade of W
May 3	Last day of classes
May 4-5, 8-9	Reading days
May 6-7, 10-11	Final exams
May 23	Commencement
May 31	Memorial Day

Index



- Absence
 - leaves of, 41
 - religious beliefs, 40
- Academic
 - Advising, 11
 - Calendar, 389
 - Classification, 40
 - Grades, 38
 - Honors, 41
 - Integrity, 41
 - Program, 6
 - Regulations, 38
 - Requirements, 37
 - Standing, 40
 - Support, 12
- Accelerated Degree program, 9
- Accreditation, 5
- Adding/Dropping courses, 40
- Administration, 387
- Admissions, 34
 - Application, 34
 - Deferred, 35
 - Deposit, 29, 35
 - Early admission, 35
 - Early decision, 35
 - Graduate programs, 49
 - International, 34-35
 - Interviews, 35
 - Notification, 35
 - Regular admission, 35
 - Requirements, 34
 - Tests, 35
 - Transfer, 34
 - Visiting campus, 35
- Advanced Placement, 36
- Advising, 11
- Aesthetic Perspective courses, 7
- American Language and Culture Institute (ALCI), 12
- Ancient Civilization, 57
- Application and Requirements, 34
 - Fee, 29, 34
- Art History and Criticism, 319
- Asian Studies concentration, 348
- Assistantships, 54
- Athletics, 47
- Attendance, 40
- Audit status, 39
- Biochemistry and Molecular Biology, 60
- Biology, 63
- Bistro, 43
- Burnham Map and Aerial Photography Library, 46
- Calendar, Academic, 389
- Campus map, 396, 397
- Campus security, 45
- Campus visits, 35
- Career Services, 44
 - Advising, 44
 - Internships, 45
 - Prelaw advising, 45
 - Resources, 44
 - Volunteer center, 45
- Carlson Science Library, 46
- Center for Community-Based Development, 55
- Center for Holocaust and Genocide Study, 11
- Center for Technology, Environment and Development, 54
- Certificate for Advanced Graduate Study, 50
- Chemistry, 72
- Chinese, 143
- Clark Labs for Cartographic Technologies and Geographic Analysis (Clark Labs), 55
- ClarkOne Card, 30
- Classics, 143
- Colleges of Worcester Consortium, 12
- Contingency Deposit, 29
- Communication and Culture, 78
- Community Development and Planning, 224
- Comparative Literature, 83
- Comparative Perspective courses, 7
- Computational Science, 350

- Computer resources, 46
- Computer Science, 87
- Concentrations, 9, 348
 - Asian Studies, 348
 - Computational Science, 350
 - Ethics and Public Policy, 351
 - Holocaust and Genocide Studies, 353
 - Jewish Studies, 355
 - Law and Society, 358
 - Peace Studies, 359
 - Race and Ethnic Relations, 361
 - Urban Development and Social Change, 364
 - Women's Studies, 367
- Consortium, 12
- Continuing Education (COPACE), 50
- Corporation, the, 388
- Course load variance, 29
- Course registration, 39
- Course withdrawal, 39
 - Changes, 40
- Credit/no credit option, 38
- Critical Thinking courses, 7
- Curriculum, 6
- Dean of Students Office, 44
- Dean's list, 42
- Deferred admission, 35
- Degree requirements, 37
- Departmental honors, 41
- Deposits, 29, 35
- Directory, 378
- Dismissal, 41
- Doctoral Programs, 51
 - Biology, 66
 - Biomedical Sciences, 52
 - Chemistry, 74
 - Economics, 95
 - Geography, 159
 - History, 192
 - Physics, 282
 - Psychology, 291
 - Women's Studies, 369
- Early admissions, 35
- Early decision program, 35
- Economics, 92
- "Economic Geography," 163
- Education, 103
- Endowed scholarships, 32
- Engineering, 11, 114
- English, 116
- English as a Second Language (ESL)
 - (See American Language and Culture Institute, 12)
- Entrance requirements, 34
- Environmental Science and Policy, 131
- Escort Service, 45
- Ethics and Public Policy concentration, 351
- Examinations, 39
- Facilities, 45
- Faculty, 378
- Family Education Loan, 28
- Federal Perkins Loans, 32
- Federal Work Study, 32
- Fees, 29, 53
- Fellowships, 53
- Fifth-year free, 9
- Film (See Screen Studies, 338)
- Financial aid, 30
 - Grants, 31
 - Loans, 31
 - Return of institutional financial aid, 33
 - Return of Title IV funds, 33
 - Work study, 30, 32
- First-Year Seminars, 8, 12
- Fitness center, 47
- Food services, 43
- Foreign Languages and Literatures, 140
- Formal Analysis courses, 7
- French, 144
- Geographic Information Sciences for
 - Development and Environment (GISDE), 162, 226
- Geography, 154
- George F. and Sybil H. Fuller Foundation
 - Center for Music, 47

- George Perkins Marsh Institute, 54
- Gerontology Program, 12
- German, 147
- Goddard Library, 45
- Government and International Relations, 176
- Grading system, 38, 52
- Graduate Program and Research Institutes, 48
 - Admission, 49
 - Advanced graduate study, 50
 - Continuing education, 50
 - Doctoral programs, 51
 - Grading, 52
 - Housing, 52
 - Master of Arts, 49
 - Tuition, 53
- Greening of Industry Network, 55
- Guest and special students, 40
- Health services, 44
- Health Insurance, 27
- Hebrew, 149
- Heinz Werner Institute, The, 56
- Jacob Hiatt Center for Urban
 - Education, 55, 104
- Historical Perspective courses, 7
- History, 190
- History of Clark, 5
- Holocaust and Genocide Studies, 353
- Holocaust Center, 11
- Honors, 42
- Housing, 43, 52
 - Deposit, 29
- Identification cards, 30
- IDRISI, 55
- Incompletes, 39
- Information technology, 50
- Institute for Economic Studies, 56
- Interdisciplinary majors, 8
- International Development and Social
 - Change, 208
- International Development, Community
 - and Environment, 219
- International student admission, 36
 - Financial assistance, 33
- International Students and Scholars Office, 10
- International Studies Stream, 19
 - Courses, 21
 - Faculty, 26
 - Requirements, 20
- Internships, 10, 45
- Interviews and campus visits, 35
- Jacob Hiatt Center for Urban
 - Education, 55, 104
- Japanese, 149
- Jewish Studies concentration, 355
- Kasperson Library, 54
- Keys, 30
- Kneller Athletic Center, 47
- Language and Culture Perspective courses, 7
- Language Arts Resource Center, 12
- Law and Society, 358
- Leaves of absence, 41
- Liberal Studies Program, 6
- Libraries, 45
- Loans, 30, 31
 - Deferment, 53
- Majors and Minors, 57
 - Ancient Civilization, 57
 - Biochemistry and Molecular Biology, 60
 - Biology, 63
 - Chemistry, 72
 - Communication and Culture, 78
 - Comparative Literature, 83
 - Computer Science, 87
 - Economics, 92
 - Education, 103
 - Engineering, 114
 - English, 116
 - Environmental Science and Policy, 131
 - Foreign Languages and Literatures, 140
 - Chinese, 143
 - Classics, 143
 - French, 144
 - German, 147
 - Hebrew, 149
 - Japanese, 149
 - Russian, 150
 - Spanish, 150

- Geography, 154
- Government and International Relations, 176
- History, 190
- International Development and Social Change, 208
- Management, 239
- Mathematics, 265
- Philosophy, 271
- Physics, 280
- Psychology, 288
- Sociology, 312
- Visual and Performing Arts, 318
 - Art History and Criticism, 319
 - Music, 331
 - Screen Studies, 338
 - Studio Art, 326
 - Theater Arts, 343
- Management, 239
- Map Library, 46
- Map of campus, 396, 397
- Marsh Institute, 54
- Master's Degree, 48
 - Biology, 65
 - Business Administration, 51, 241, 246
 - Chemistry, 74
 - Community Development and Planning, 224
 - Education, 105
 - English, 119
 - Environmental Science and Policy, 135, 227
 - Finance, 249
 - Geographic Information Sciences, 160
 - Geographic Information Sciences for Development and Environment, 160, 226
 - Geography, 159
 - History, 192
 - Information Technology, 50
 - International Development and Social Change, 223
 - Liberal Arts, 50
 - Physics, 282
 - Professional Communication, 50
 - Psychology, 292
 - Public Administration, 50
 - Mathematics, 265
 - Mathematics Placement Test, 267
 - Medical refund policy, 29
 - Minors, 9
 - Mission statement, 4
 - "Monadnock Newsletter," 163
 - Monthly payment plan, 28
 - Music, 331
 - Natural Scientific Perspective courses, 7
 - Noncredit status, 39
 - Nondiscrimination statement, 395
 - No Shows, 41
 - Office of Financial Assistance, 30
 - Office of Study Abroad Programs, 10
 - One Card, 30
 - Orientation fee, 29
 - Pass/No record option, 38, 39
 - Payment options, 28
 - Peace Studies concentration, 359
 - Perspectives courses, 7
 - Ph.D. Programs (see doctoral programs, 51)
 - Philosophy, 271
 - Photo use policy, 395
 - Physics, 280
 - Political Science (see Government, 176)
 - Postgraduate programs, 50
 - Preprofessional programs, 10
 - Prelaw advising, 45
 - Presidential Scholarship, 32
 - Program of Liberal Studies, 6
 - Psychology, 288
 - Race and Ethnic Relations concentration, 361
 - Refunds, 28
 - Registration, 39
 - Religious beliefs, absences, 40
 - Requirements
 - Admission, 34
 - Bachelor's Degree, 37
 - Research fellowships, 54
 - Research Centers and Institutes, 54
 - Room and board, 27
 - ROTC, 11
 - Russian, 150

Satisfactory academic progress, 32
 Scholarships, 31, 32, 53
 Science facilities, 46
 Screen Studies, 338
 Security, 45
 Sociology, 312
 Spanish, 150
 Special Needs Services, 11
 Strassler Family Center for Holocaust and
 Genocide Studies, 11
 Student activity fee, 29
 Student-designed majors, 8
 Student housing, 43, 52
 Studio art, 326
 Study abroad, 10
 Study-abroad refund policy, 28

 Teaching assistantships, 54
 Theater arts, 343
 Traina Center for Arts, 47
 Transcripts, 28
 Transfer admissions, 36
 Transfer credit, 37
 Trustees, 388
 Tuition, 27, 53
 Deposit, 29
 Graduate, 53
 Payment options, 28
 Refund policies, 28
 Undergraduate, 27
 Tuition Inflation Hedge, 28

 University honors, 42
 University Park Campus School, 104
 Urban Development and Social Change, 364

 Values Perspective courses, 7
 Verbal Expression courses, 7
 Visual and Performing Arts, 318
 Facilities, 47
 Volunteer Center, 45

 Heinz Werner Institute for Developmental
 Analysis, 56, 289
 Withdrawal from course, 39
 Women's Studies, 367
 Worcester Consortium, 12
 Work Study Program, 32
 Writing Center, 11
 Writing Program, 119

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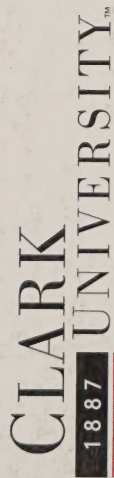
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